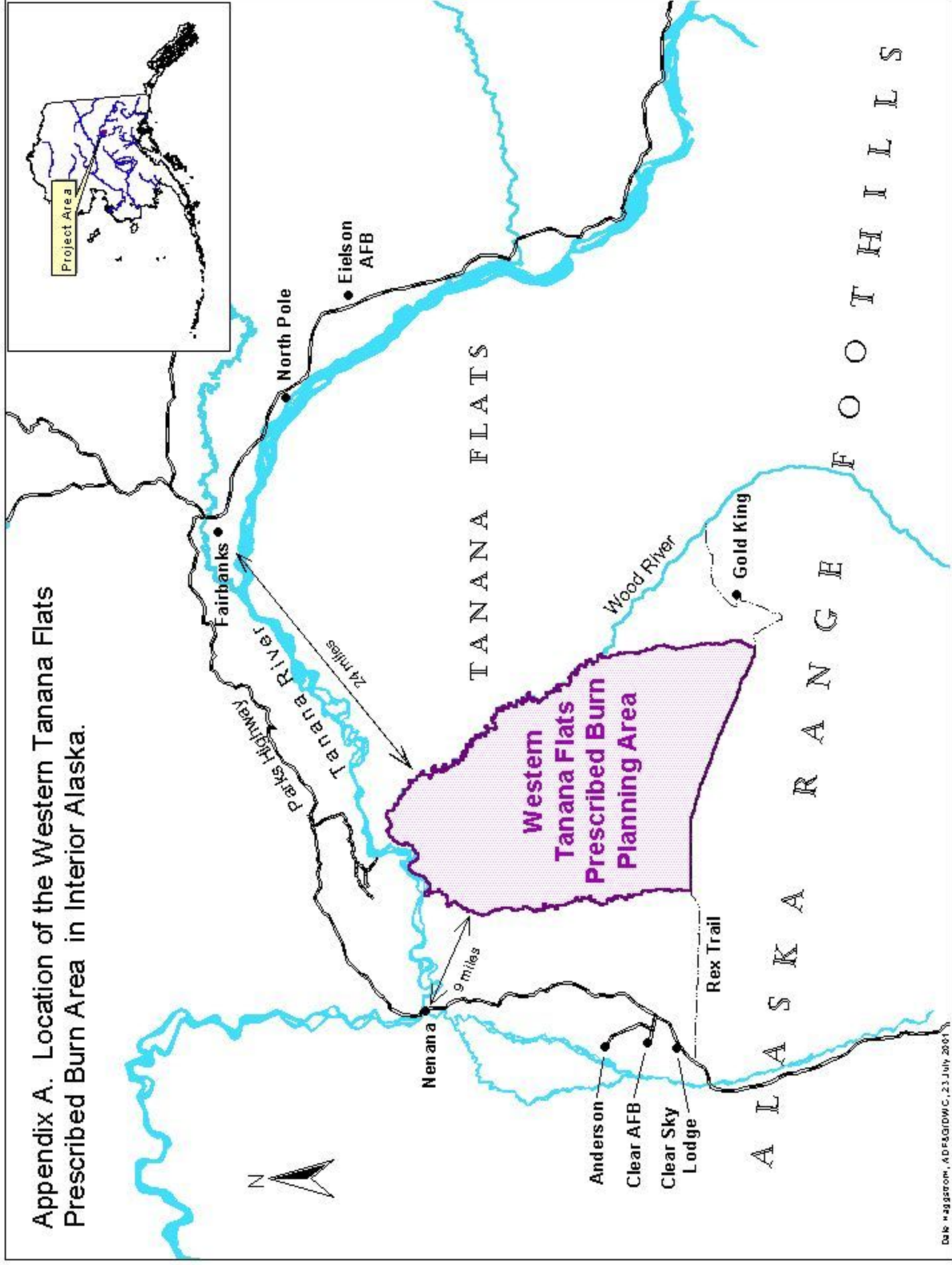
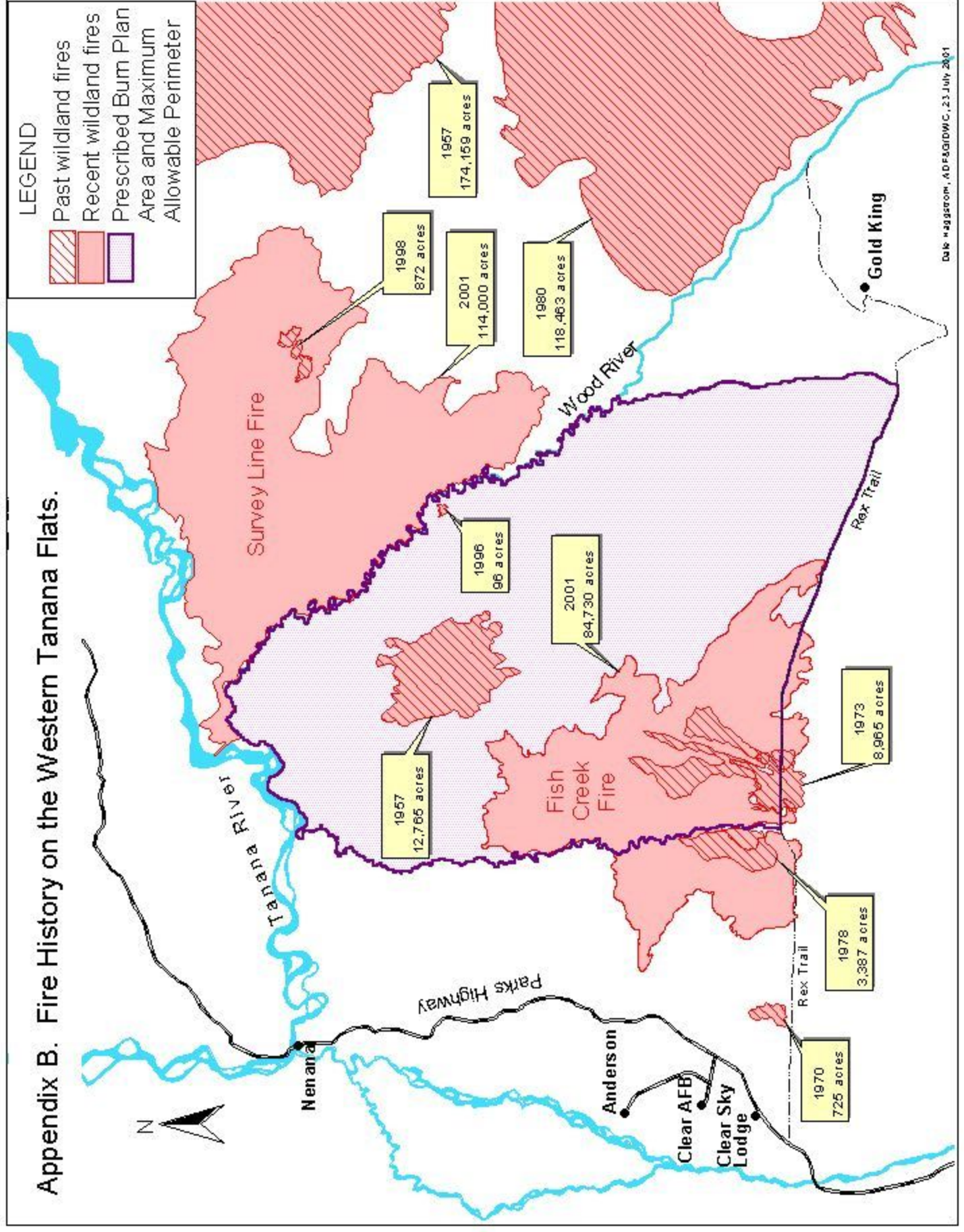


Appendix A. Location of the Western Tanana Flats Prescribed Burn Area in Interior Alaska.

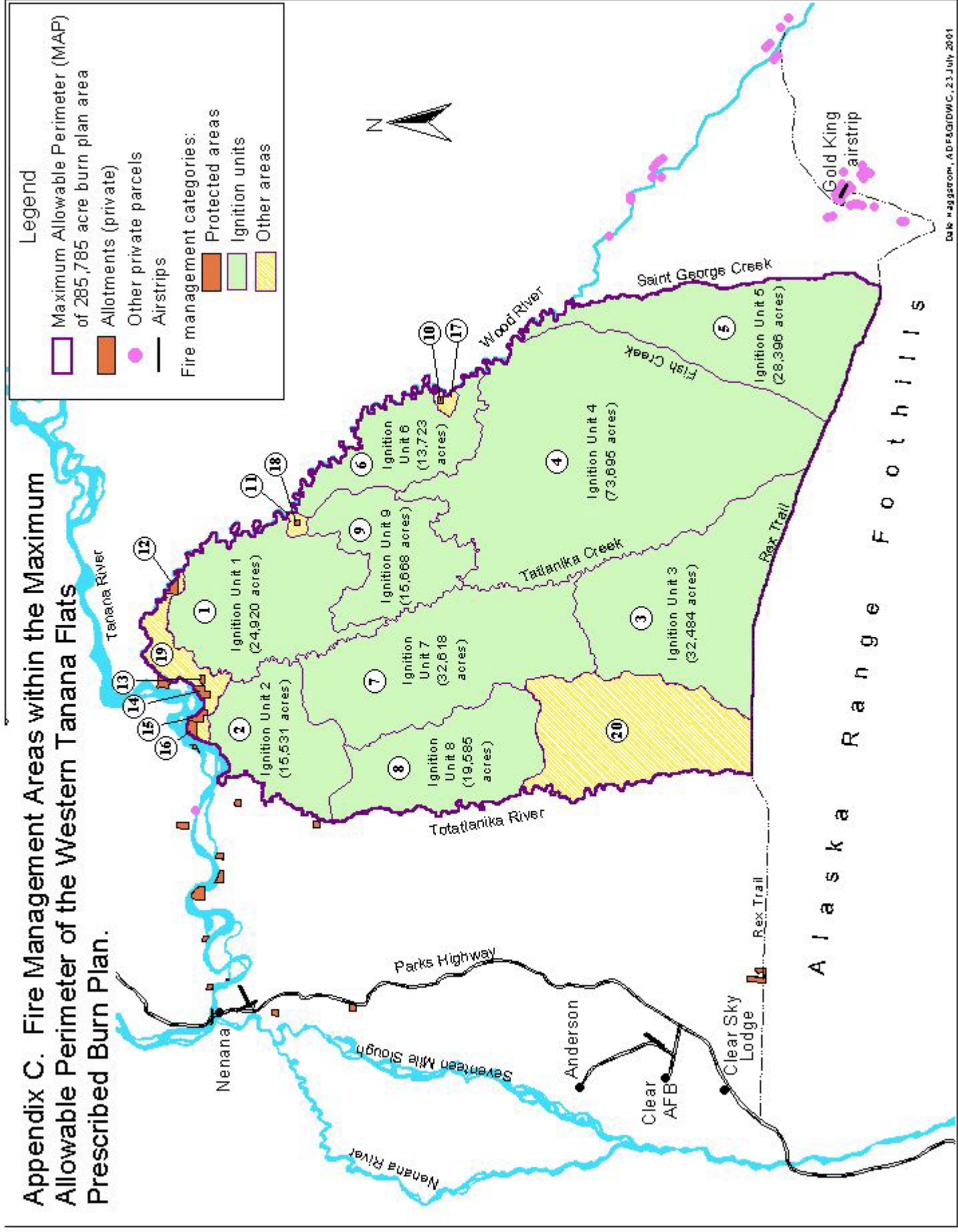


## Appendix B. Fire History on the Western Tanana Flats.

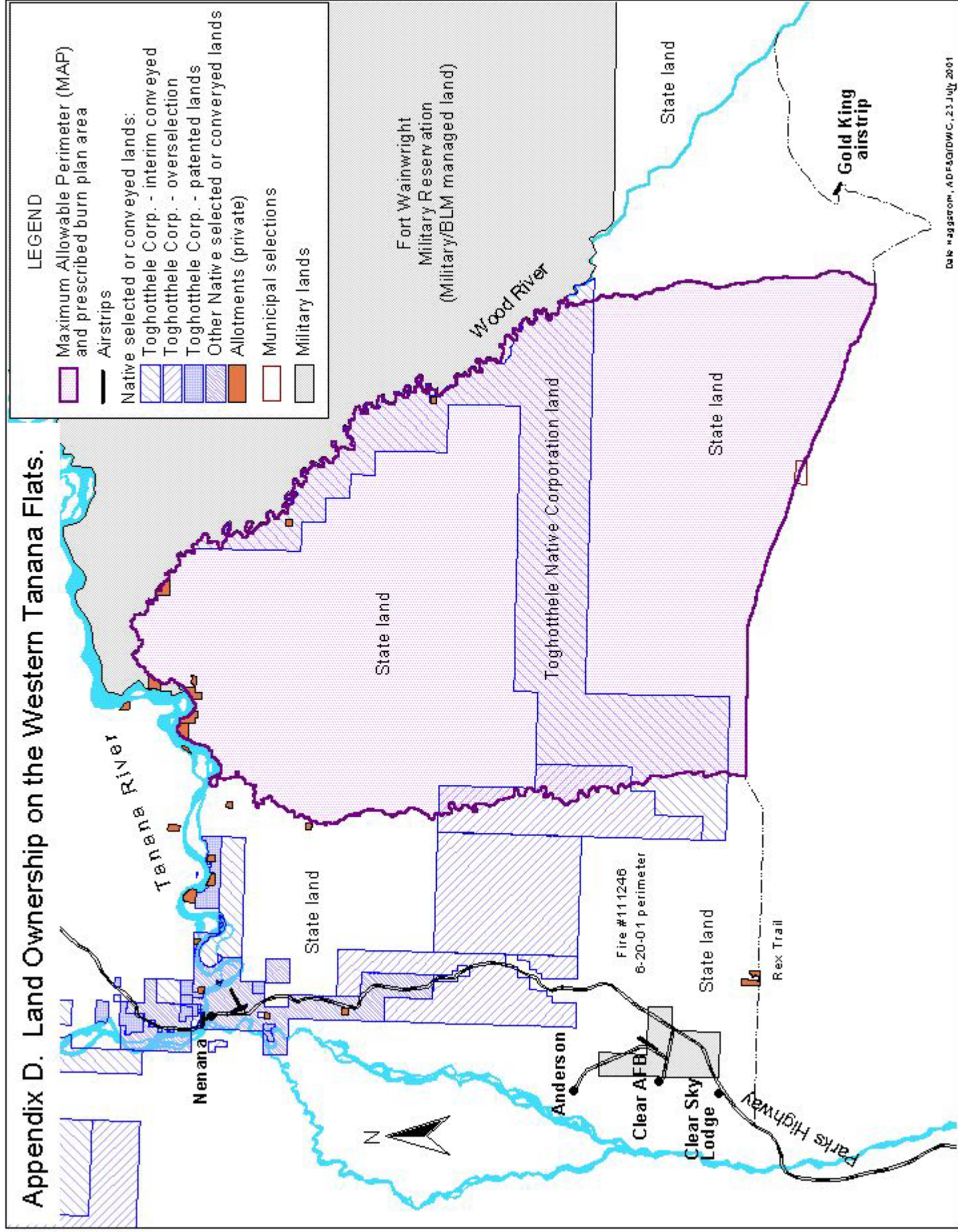




# Appendix C. Fire Management Areas within the Maximum Allowable Perimeter of the Western Tanana Flats Prescribed Burn Plan.



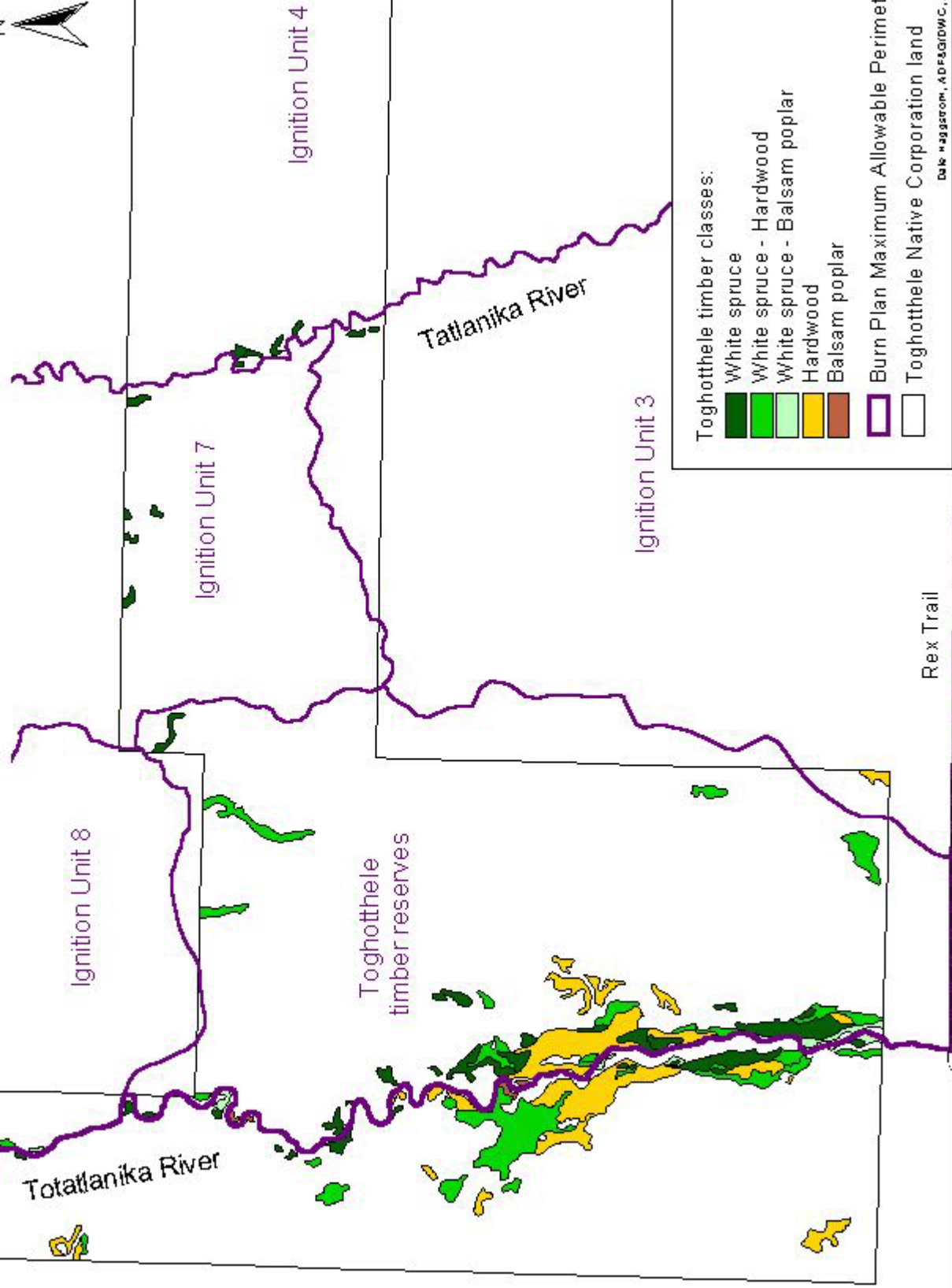
# Appendix D. Land Ownership on the Western Tanana Flats.



Date: 7/30/01, ADF&G/DWC, 23 July 2001

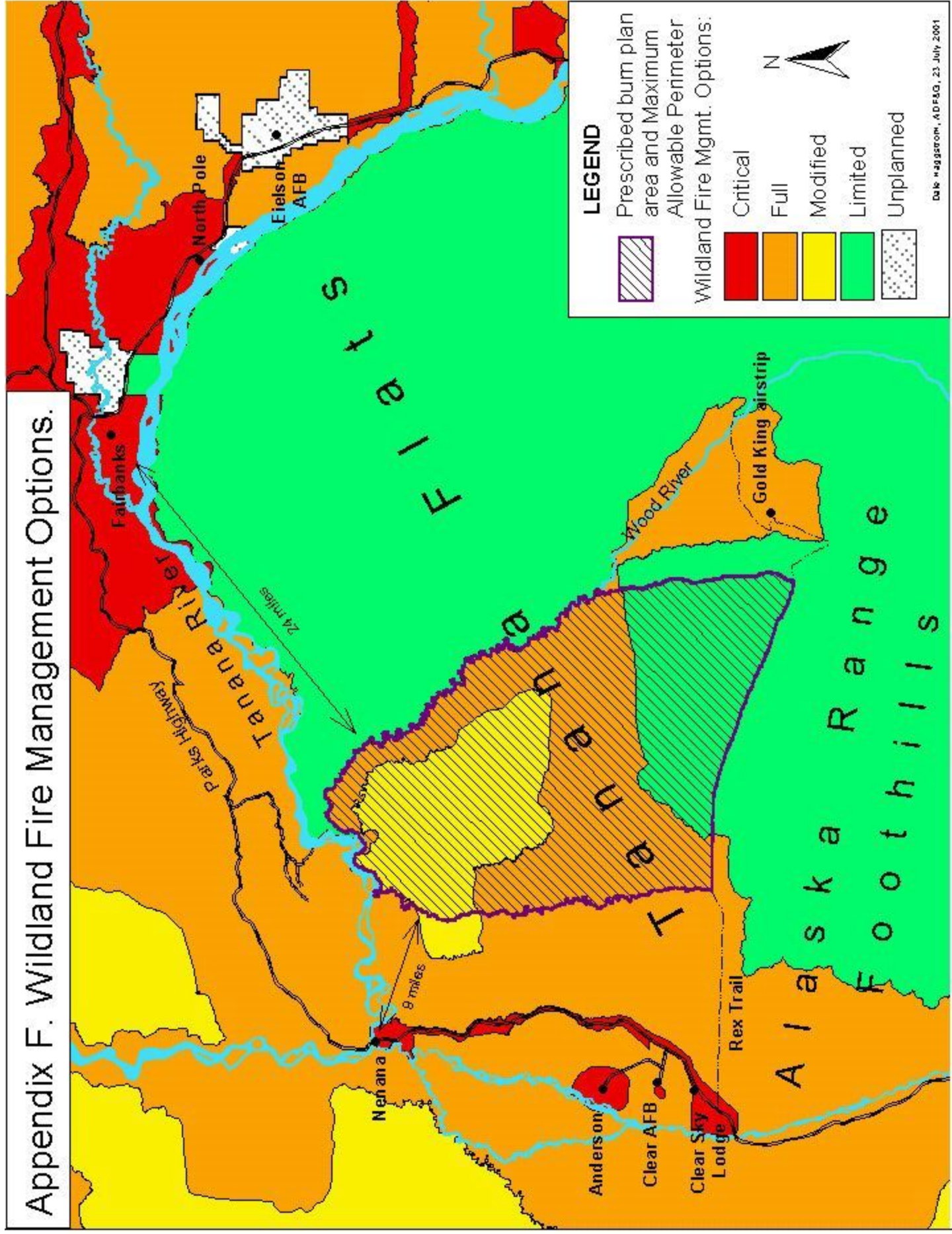


Appendix E. Timber owned by the Toghothle Native Corporation  
(some has commercial value and must be protected during  
prescribed burning; check with owner).



Date: 7/30/01, ADF&G/DWC, 23 July 2001

# Appendix F. Wildland Fire Management Options.



DATE	ACTIVITY
1. August 22, 1995	ADF&G-DWC staff and Mitch Demientieff (President, Toghotthele Corporation, Nenana) fly over potential burn sites on the Tanana Flats and over an existing fire at "D" Lake west of Nenana.
2. August 30, 1995	Dale Haggstrom updated ADF&G Front Line staff on the status of the planned Tanana Flats Prescribed Fire.
3. September 21, 1995	Calls placed in anticipation of burning: Bill Smyth at ADEC; Glen Anderson at BIA in Anchorage; Perry Ahsogeak in Realty at TCC; Fairbanks City Mayor Jim Hayes (459-6793); Chief of Staff Ralph Malone at the Borough Mayor's Office; the city clerk in Nenana; Pete Buist about trappers with lines in the area; phone interview with Tim Mowry of the News-Miner; and channel 2 and 11 news.
4. September 21, 1995	ADF&G news release, "Fish and Game and Forestry Plan Fire on Tanana Flats."
5. September 22, 1995	News story, "Controlled burn slated for Tanana Flats," in the Fairbanks Daily News-Miner by Tim Mowry, Staff Writer.
6. September 1995, one week later	News story, "Rain puts damper on controlled burn in Tanana Flats," in the Fairbanks Daily News-Miner by Tim Mowry.
7. February 1996	ADNR-DOF and ADF&G-DWC staff talked to Nenana elders.
8. April 3 and May 30, 1996	Western Tanana Flats prescribed fire mentioned in biweekly report of DWC, ADF&G
9. June 1996	Notices (with map) posted at Chena Pump Wayside, Nenana Airport, Nenana Fire Department, Nenana Post Office, Cosna Road, Anderson Volunteer Fire Department, Anderson Post Office, Anderson City Hall, Clear Sky Lodge, road to Windy Creek Subdivision, rest area on Parks Highway near Rock Creek, Healy Post Office, and Healy City Hall.
10. Summer 1996	Dale Haggstrom and Cathie Harms discussed prescribed fires on KFAR radio in Fairbanks.
11. August 19, 1996	ADF&G news release, "Fish and Game and Forestry Hope to Ignite Fire in Tanana Flats."



DATE	ACTIVITY
12. May 31, 1997	ADF&G news release, "Fish and Game and Forestry To Ignite Fire On Tanana Flats," sent to the Associated Press, Fairbanks Daily News-Miner, KATN, KIAK, KUAC, KTVF/KCBF/KXLR, KJNP, North Pole independent, Ted Leonard, Toghotthele Native Corporation (Nenana), ADNR-DOF Fairbanks Area Forester, the Alaska Fire Service, ADF&G Commissioner, ADF&G-DWC Headquarters, and ADF&G-DWC Anchorage.
13. May 2, 1997	Controlled burn on Tanana Flats mentioned in lecture to Wildlife & Fisheries 101 class at UAF.
14. June 3, 1997	Mention of the planned Western Tanana Flats prescribed fire in the news release for the Creamer's Refuge Prescribed Fire.
15. June 3, 1997	FAX transmittal of a burn location map and notice of intent to burn to the Anderson, Nenana, and Tri-Valley Fire Departments.
16. June 3, 1997	Front line staff informed of 1997 plans and provided with a map for public reference.
17. June 4, 1997	News story, "State to burn thousands of acres; Biologists, foresters hope to improve Tanana Flats habitat for wildlife," in the Fairbanks Daily News-Miner by Brian O'Donoghue, Staff Writer.
18. June 16, 1997	Prescribed fire update included in external greeting for Dale Haggstrom's voice mail (459-7259) and provided to Fairbanks ADF&G staff via email.
19. June 26, 1997	Mayor Knight in Nenana contacted and informed about potential ignition of fire within one week, and that Haggstrom and Kurth will be in Nenana 6/27/97 to talk with elders and any other interested people.
20. June 27, 1997	Dale Haggstrom and Tom Kurth traveled to Nenana and talked with elders, Mayor Robert Knight and the Judy Holbert at the Nenana Health Clinic. They presented information about the proposed fire, a map of the burn area and discussed potential health concerns.
21. Summer 1998	Ignition never seemed likely due to unusually wet conditions. Thus, no public notifications were issued.



DATE	ACTIVITY
22. July 9, 1999	Dale Haggstrom and Tom Kurth traveled to Nenana to discuss the planned burn in Ignition Unit 1 with Edna Hancock, current President of the Toghotthele Corporation, and Mitch Demientieff (member, Toghotthele Corp. Board of Directors, and past President). A recent timber inventory of Toghotthele lands identified a substantial block of commercial timber near Ignition Unit 3 that Ms. Hancock wants protected from fire. The few isolated stands of commercial timber on Toghotthele lands along the Wood River near Ignition Unit 1 will not need additional protection beyond what is already planned to specifically protect allotments and generally keep the prescribed fire out of the riparian white spruce zone. Dale and Tom also briefly visited Mayor Robert Knight, who already is familiar with and supportive of the prescribed fire. The need to post signs at various Nenana area boat launches prior to ignition was discussed.
23. July 14, 1999	Joint ADF&G/ADNR news release, "Fish and Game and Forestry To Ignite Fire On Tanana Flats," sent to the Associated Press, Fairbanks Daily News-Miner, Anchorage Daily News, KATN, KIAK, KUAC, KFQD, KIMO, KTUU, KTVF/KCBF/KXLR, KJNP, AFRN, North Pole independent, Ted Leonard, ADF&G Commissioner, ADF&G-DWC Headquarters, ADF&G-DWC Anchorage and ADNR-DOF Northern Regional Office for ADNR distribution.
24. March 21, 2000	Tom Paragi (ADF&G-DWC) spoke with Larry Mead, who runs a Bed and Breakfast business at Gold King along with Kate Wood, about plans for prescribed burning on the western Tanana Flats this summer.
25. Summer 2000	Ignition never seemed likely due to unusually wet conditions. Thus, no public notifications were issued.
26. April 11, 2001	Dale Haggstrom and Don Young (ADF&G-DWC), and Marc Lee, Tom Kurth, and Pete Buist (ADNR-DOF) gave a presentation before the Fairbanks Fish and Game Advisory Committee concerning the need for habitat enhancement on the Tanana Flats and the status of the Western Tanana Flats Prescribed Burn Plan.
27. April 11, 2001	Dale Haggstrom (ADF&G-DWC) and Tom Kurth (ADNR-DOF) sent a letter and map to the owner's on record for 41 private parcels in the Gold King area.

DATE	ACTIVITY
28. April 18, 2001	Dale Haggstrom, Tom Paragi, Don Young and Cathie Harms (ADF&G-DWC) and Tom Kurth (ADNR-DOF) went on KFAR radio to talk about the plans for prescribed burning on the western Tanana Flats and answer questions from listener.
29. April 20-22, 2001	Fire poster displayed and leaflets made available during the Outdoor Show at the Carlson Center, Fairbanks.
30. April 30, 2001	Tom Paragi (ADF&G-DWC) sent a short article to the Fairbanks Chamber of Commerce for inclusion in that organization's newsletter. Article was subsequently printed in the June issue.
31. May 2, 2001	Tom Paragi (ADF&G-DWC) sent a short article to the Fairbanks Convention and Visitor's Bureau for inclusion in that organization's newsletter.
32. May 4, 2001	Dale Haggstrom (ADF&G-DWC) sent letter to Mr. James Hunter, Gold King resident, in reply to his May 3 letter expressing concerns about the planned prescribed burn. Dale also offered to travel to Gold King to meet with residents.
33. May 7, 2001	Dale Haggstrom (ADF&G-DWC) sent a letter to Representatives Jim Whitaker and Joe Hayes explaining his response to Gold King residents' concerns, since James Hunter had sent copies of his May 3 letter to these legislators.
34. May 7, 2001	Dale Haggstrom (ADF&G-DWC) sent letters to Gold King residents David and Sylvia Pott, James Hunter, Gary Wik, Larry Mead, and Ron and Cecilia Perkins thanking them for their jointly signed letter of April 19 and responding to some of their concerns. Dale enclosed copies of his May 4 reply to James Hunter and his May 7 letter to Representatives Jim Whitaker and Joe Hayes.
35. May 7, 2001	Dale Haggstrom (ADF&G-DWC) sent a letter to Edna Hancock, President of Toghotthele Corporation, informing her that the burn plan was being revised and would need to be re-approved before implementation during summer 2001. Dale enclosed copies of the correspondence with James Hunter, and Representatives Jim Whitaker and Joe Hayes.
36. May 9, 2001	Dale Haggstrom (ADF&G-DWC), Tom Kurth (ADNR-DOF), and Darla Hasselquist (ADNR-DMW&L) met with Gold King residents Jim Hunter and David Pott to discuss their concerns about protection of homes and property from prescribed burning.



DATE	ACTIVITY
37. May 10, 2001	Slide presentation by Don Young (ADF&G-DWC) to the Clear Sky Sportsman's Association.
38. May 18, 2001	Tom Paragi (ADF&G-DWC) sent an article to the Northern Alaska Environmental Center for inclusion in that organization's newsletter.
39. May 22, 2001	Slide presentation by Tom Paragi (ADF&G-DWC) to Natural Resources Committee of Fairbanks Chamber of Commerce.
40. May 25, 2001	Slide presentation by Tom Paragi (ADF&G-DWC) to the Fairbanks chapter of the Sierra Club. About 25 people attended.
41. May 30, 2001	Presentation by Dale Haggstrom (ADF&G-DWC) to the Alaska Outdoor Council, Fairbanks. About 6 people were present.
42. June 4, 2001	Slide presentation by Don Young (ADF&G-DWC) to Safari Club International, Fairbanks
43. June 8, 2001	Dale Haggstrom and Don Young (ADF&G-DWC) and Tom Kurth (ADNR-DOF) went on KFAR radio to talk about the plans for prescribed burning on the western Tanana Flats and answer questions from listener.
44. June 11, 2001	Slide presentation by Tom Paragi (ADF&G-DWC) to the Board for the Fairbanks Chamber of Commerce. Approximately 40 people were in attendance, including Sen. Jeanette James.
45. June 12, 2001	Slide presentation by Tom Paragi (ADF&G-DWC) to Tanana Valley Sportsmen's Association. About 8 people were present. Those in attendance offered to send letter of support to DOF and to express support in the local media if complaints arise over smoke.

Entity	Contact Person	Phone Number, Fax Number, or Email Addresses	✓ when done
<b>Alaska Interagency Coordination Center</b>	Dave Curry <u>or</u> Bob Dickerson	Phone: 356-5677  Phone: 356-5670	_____ _____
<b>Agencies:</b>			
Alaska Department of Environmental Conservation	Ann Lawton (Anchorage; no local contact)	Phone: 269-3066      Fax: 269-7508 Email: <a href="mailto:alawton@envircon.state.ak.us">alawton@envircon.state.ak.us</a>	_____
Commissioners of ADF&G and DNR		email	_____
ADNR, Division of Mining, Land & Water	Chris Milles  <u>or</u> Darla Hasselquist	Phone: 451-2711      Fax: 451-2751 Email: <a href="mailto:chris_milles@dnr.state.ak.us">chris_milles@dnr.state.ak.us</a>  Phone: 451-2720      Fax: 451-2751 Email: <a href="mailto:darlah@dnr.state.ak.us">darlah@dnr.state.ak.us</a>	_____ _____
State Historic Preservation Office (SHPO)	Judy Bittner	Phone: 269-8715 Email: <a href="mailto:judy_bittner@dnr.state.ak.us">judy_bittner@dnr.state.ak.us</a>	_____
Bureau of Indian Affairs	Nate Shourds	Phone: 586-7321      Fax: 586-7252 Email: <a href="mailto:nathanshourds@bia.gov">nathanshourds@bia.gov</a>	_____
Bureau of Land Management, Northern Field Office	Skip Theisen, Fire Mgmt. Officer	Phone: 474-2332      Fax: 474-2282 Email: <a href="mailto:stheisen@ak.blm.gov">stheisen@ak.blm.gov</a>	_____
BLM - Alaska Fire Service (AFS)	Tami DeFries, Fire Management Officer	Phone: 356-5503      Fax: 356-5556 Email: <a href="mailto:tamala_defries@ak.blm.gov">tamala_defries@ak.blm.gov</a>	_____
Denali National Park	Larry Weddle  <u>or</u> John Cataldo	Phone: 683-9241      Fax: 683-6356 Email: <a href="mailto:larry_weddle@nps.gov">larry_weddle@nps.gov</a> or -9639  Phone: 683-9241      Fax: (same) Email: <a href="mailto:john_cataldo@nps.gov">john_cataldo@nps.gov</a>	_____ _____
Tanana Chiefs Conference, Inc. (Native allotments)	Jim Bell	Phone: 452-8251 x 3375      Fax: 459-3851 Email: <a href="mailto:jbell@tananachiefs.org">jbell@tananachiefs.org</a>	_____
<b>Legislators:</b>	Interior delegation	email	_____
<b>Fairbanks:</b>			
• <u>ADF&amp;G/ADNR staff</u>		email	_____



Entity	Contact Person	Phone Number, Fax Number, or Email Addresses		✓ when done
• <u>Airports</u>				
Fairbanks International Airport	Brian McIntyre or Darryl Avara or Dispatch	Operations Officer, phone: 474-2559 Operations Officer, phone: 474-2552 Phone: 474-2530		____ ____ ____
Fairbanks Flight Service Station		Phone: 474-0388		____
• <u>Air Quality</u>				
Fairbanks North Star Borough	Kent Monroe or Paul Rossow	Phone: 459-1325 Phone: 459-1322		____ ____
• <u>Alaska State Troopers</u>	Dispatch	Phone: 451-5100		____
• <u>Governor's Office</u>	Tom Moyer	Phone: 451-2920		____
• <u>Mayor's Office</u>				
City of Fairbanks	James Hayes	Phone: 459-6793	Fax: 459-6893	____
North Star Borough	Mayor's Office	Phone: 459-1300		____
• <u>Media</u>				
Fairbanks News-Miner	Tim Mowry	Phone: 456-7587	Fax: 452-7917	____
KATN ch 2 TV		Phone: 452-2125		____
KFAR and KWLF radio	Ty Paine	Phone: 451-5910	Fax: 451-5999	____
KFXF Ch 7 and Ch 13 TV	Amy Hartley	Phone: 452-1719	Fax: 456-3428	____
KIAK and KAKQ radio	Charlie O'Toole	Phone: 457-1921		____
KJNP radio and Ch 4 TV	Julie Arested	Phone: 488-2216		____
KSUA radio		Phone: 474-7054	Fax: 474-6314	____
KTVF Ch 11 TV and KXLR radio	Andrew Cassel	Phone: 458-1830	Fax: 458-1831	____
KUAC radio and Ch 9 TV	John McWhorter	Phone: 474-5085	Fax: 474-5064	____
<b>Anderson:</b>				
Anderson Volunteer Fire Department	Jim Neeley	Phone: 582-2500	Fax: 582-2496	____

Entity	Contact Person	Phone Number, Fax Number, or Email Addresses	✓ when done
<b>Clear AFB (contact 1 of following - ask that info be passed on to appropriate people):</b>			
Environmental Coordinator	Donna Hardy	Phone: 585-6341      Fax: 585-6183 Email: donna.hardy@clear.af.mil	___
	<u>or</u>		
	John Basile	Phone: 585-6398      Fax: 585-6183 Email: <a href="mailto:john.basile@clear.af.mil">john.basile@clear.af.mil</a>	___
<b>Eielson Air Force Base:</b>			
EAFB Airport	Msgt. Haller	Phone: 377-3112	___
<b>Fort Wainwright:</b>			
U.S. Army (Tanana Flats - Ft. Wainwright Military Reservation)	Steve Reidsma, Natural Resource Specialist	Phone: 353-9685      Fax: 353-9867 Email: <a href="mailto:dpwwb@wainwright.army.mil">dpwwb@wainwright.army.mil</a>	___
Ft. Wainwright Airport		Phone: 353-9507	___
Base Commander		Phone: 353-7660	___
<b>Healy:</b>			
Tri-Valley Fire Dept.	Rusty Lasell	Phone: 683-2223      Fax: 683-1351	___
<b>Nenana:</b>			
City Mayor	Robert L Knight	Phone: 832-5441	___
Health Clinic	Judy Holbert	Phone: 832-5247	___
Seniors Center		Phone: 832-5818	___
Police and Fire Dept.	Gene Jensen	Phone: 832-5632      Fax: 832-5503	___
Alaska State Troopers		Phone: 832-5554	___
KIAM radio		Phone: 832-5426	___
Toghotthele Corp.	Edna Hancock, President	Phone: 832-5461	___
<b>North Pole:</b>			
City Mayor		Phone: 488-2281	___



Entity	Contact Person	Phone Number, Fax Number, or Email Addresses		✓ when done
Other:				
Gold King resident	David & Sylvia Pott	Phone: 322-3025		_____
Gold King resident	Larry Mead	Phone: 322-3614	Msg: 459-8288	_____
Transporter (uses cabins along Wood R.)	Charlie Horvach	Phone: 458-7950		_____
	<u>or</u> John Stancill	Phone: 474-9550		_____
Guide (has airstrip/camp site along Tatlanika Cr.)	Mark Berrie (Indian Mountain Outfitters)	Phone: 488-1915		_____

**Alaska Department of Environmental Conservation  
Air Quality Program  
Approval to Open Burn**

**Location: 74,000 acres in the Western Tanana Flats, Ignition Unit 4  
Approval Number: Y013-NO034  
Expiration date: June 1, 2006**

The DEC, under the authority of AS 46.03, AS 46.14 and 18 AAC 50, issues this written approval to Mr. Marc Lee, Alaska Dept. of Natural Resources, for controlled burning to manage forest land, vegetative cover, fisheries, or wildlife habitat (18 AAC 50.065(g)).

This approval is subject to the following conditions:

1. A copy of this burn approval should be kept at the burn site during burn activities.
2. **Notification:** The DEC shall be notified at least one day in advance of any planned burn of more than 40 acres, telephone 1-907-269-3066. Your local FAA office and local fire department(s) should be notified. Public notification shall occur through the local news media (if present) or at the local Post Office at least three days prior to the burn (18 AAC 50.065 (j)), so that each advertisement shall have:
  - a) permittee or other contact name
  - b) contact's telephone number
  - c) location of the burn
3. Permittee shall list complaints received concerning excess smoke (if any), including name, phone number of complainant and any corrective action taken by the permittee (18 AAC 50.065(k)).
4. Burning shall not be done during stagnant air conditions (fogs or inversions) or when air quality alerts have been posted for that airshed. If weather conditions change after ignition such that any "sensitive feature" (as listed in the *Open Burning Policy & Guidelines*) is adversely impacted, you may be required to extinguish the burn as soon as possible.
5. Test burns should be used to evaluate smoke dispersion.
6. The burning shall comply with all local ordinances.
7. The burning must be conducted following the guidance listed in 18 AAC 50.065.

This approval does not constitute a permit or approval from any agencies other than DEC; other agency permits or approvals may be necessary.

Please call me if you have any questions about this approval or any regulations cited within it. These requirements are necessary to ensure that the National Ambient Air Quality Standards are met, and to avoid the occurrence of complaints from the public and health impacts to local residents. If possible, try to avoid conducting the burn on holidays or weekends.

Thank you for your cooperation.

Ann Lawton  
Environmental Specialist  
1-800-770-8818

# MEMORANDUM

State of Alaska

DEPARTMENT OF NATURAL RESOURCES-DIVISION OF MINING, LAND AND WATER  
NORTHERN REGIONAL OFFICE - 3700 AIRPORT WAY, FAIRBANKS, ALASKA 99709


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TO: Dale Haggstrom  
ADF&G

DATE: June 6, 2001

FILE NO: LAS 22022

TELEPHONE NO: 451-2720

FROM: Darla Hasselquist  
Natural Resource Technician  
Leigh Carlson   
Natural Resource Officer

SUBJECT: Addendum to Permit  
Western Tanana Flats  
Ignition Units

The legal description for the Western Tanana Flats Prescribed Burn has been modified to describe the ignition units (previously referred to as Core Areas). See Attachment A, maps, and Attachment B, ignition units. The MAP has been reduced in size from 291,300 acres to 285,785 acres (removed buffer area by Gold King from MAP).

If you have any questions, please do not hesitate to contact me at 451-2720.

Thank you,



Darla Hasselquist  
Natural Resource Technician

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Attachment A. Same as Appendices A-F in the Western Tanana Flats Prescribed Burn Plan.

Attachment B. Same as Sections III-G and III-H in Part II of the Western Tanana Flats Prescribed Burn Plan (see pages 13-17).

## STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES DIVISION OF LAND

☐ Northern Region  
3700 Airport Way  
Fairbanks, AK 99709  
(907) 451-2740

☐ Southcentral Region  
3601 C Street, Suite 1080  
Anchorage, AK 99503-5937  
(907) 269-8552

☐ Southeast Region  
400 Willoughby, #400  
Juneau, AK 99801  
(907) 465-3400

### LAND USE PERMIT Under AS 38.05.850 PERMIT # LAS 22022

Alaska Department of Fish and game, Division of Wildlife conservation, is issued this permit to use the following described land:

Western portion of Tanana Flats: Core area 1-24,500 acres, more or less, within Township 4 South, Range 5 West, FM; Core area 2-14,500 acres, more or less, within Township 4 South, Range 6 West, FM; Core area 3-9,800 acres, more or less, within portions of Township 7 South, Range 6 West, FM (Attachment A, maps).

This permit is issued for the purpose of prescribed fire using ignition from helicopter and/or ground crew using drip torches, for the enhancement of wildlife values, and to maintain vegetative diversity and productivity.

**This permit is issued subject to: payment of the use fee in the amount of \$ -0-; posting of bond in the amount of \$ -0-; proof of insurance in the amount of \$ -0-; and compliance with the attached special stipulations, if any, in addition to those noted on the back of this document.**

**This permit is not a property right. It is a temporary authorization, revocable by the state with or without cause. This permit is effective beginning May 5, 1998, and ending on May 4, 2003, unless sooner terminated at the state's discretion.**

<u>Ralph Carlson</u> Signature of Authorized State Representative	<u>Natural Resource Officer</u> Title	<u>5-7-98</u> Date
<u>Dale Haggstrom</u> Signature of Permittee or Authorized Representative	<u>Wildlife Biologist</u> Title	<u>5-7-98</u> Date
<u>Alaska Dept. Fish and Game</u> <u>1300 College Road</u> Permittee's Address	<u>Fairbanks</u> City	<u>AK</u> State
<u>99701</u> Zip		
<u>(907) 455-6831</u> Home Phone	<u>(907) 459-7259</u> Work Phone	<u>Dale Haggstrom</u> Contact Person

**\*Permittee is responsible for maintaining a current address with the division during the life of this authorization.**

**\*Permittee is responsible for obtaining authorizations required by other agencies for the permitted activity.**



Land Use Permit  
LAS 22022  
Page 2

1. This Land Use Permit conveys no interest or property right in state land. This permit may be reissued upon application by the permittee at the state's discretion. This permit is revocable immediately, with or without cause. If revoked without cause, the permittee will be allowed 30 days within which to remove the permittee's possessions and vacate the premises. If revoked for breach of any condition, the permittee shall immediately vacate the premises. This permit is not transferable. It is issued to authorize specific activities requested by the applicant and that are not included in the category of "generally allowed uses."

2. This Land Use Permit is subject to the following provisions:

- a. Activities employing wheeled or tracked vehicles shall be conducted in such a manner as to minimize surface damage.
- b. Existing roads and trails shall be used wherever possible. Trail widths shall be kept to the minimum necessary. Trail surface may be cleared of timber, stumps, and snags. Due care shall be used to avoid excessive scarring or removal of vegetative ground cover.
- c. All activities shall be conducted in a manner that will minimize disturbance of natural drainage systems, that will not cause a change in character, pollution, or siltation of streams, lakes, ponds, water holes, seeps, and marshes, and that will not disturb fish and wildlife resources. Cuts, fills, or other activities causing any of the above disturbances, if not repaired immediately, are subject to any corrective action as may be required by the director.
- d. Unless specifically authorized by this permit, the director prohibits the disturbance of vegetation within 300 feet of any waters located in specially designated areas as prescribed in 11 AAC 96.010(2) except at designated stream crossings. These special designations are noted on the State of Alaska land status plats.
- e. All activities shall be undertaken in a manner which causes the least possible interference with other authorized uses of state lands.
- f. Trails and campsites shall be kept clean. All garbage and foreign debris shall be eliminated by removal, burning, or burial, unless otherwise authorized.
- g. All survey monuments, witness corners, reference monuments, mining claim posts, and bearing trees shall be protected against destruction, obliteration, or damage. Any damaged or obliterated markers shall be reestablished in accordance with accepted survey practices of the division.
- h. Every reasonable effort shall be made to prevent, control, or suppress any fire in the permitted area. Uncontrolled fires shall be reported immediately.
- i. Holes, pits, and excavations shall be filled, plugged, or repaired. Holes, pits and excavations necessary to verify discovery on prospecting sites, mining claims, and mining leasehold locations may be left open but shall be maintained so as to minimize erosion and siltation and shall be consistent with public safety and welfare.
- j. No person may engage in mineral exploration activity on land open to such use, the surface of which has been granted or leased to third parties by the State of Alaska, or on land in which the state has received the reserved interest of the United States until good-faith attempts have been made to agree with the surface owner or lessee on a settlement for damages which may be caused by such activity. If agreement cannot be reached, or lease or surface owner cannot be found within a reasonable time, operations may be commenced on the land only after specific approval of the director, and after making adequate provision for full payment of any damages which the surface owner or lessee may suffer.
- k. Entry on all lands under prospecting permit, lease, or claim, by other than the holder of the permit, lease, or claim, or his authorized representative, shall be made in a manner which will prevent unnecessary or unreasonable interference with the rights of the permittee, lessee, or claimant.

3. In the case of a permit authorizing early entry, pending issuance of a final authorization, permittee agrees to remove any improvements and to rehabilitate the area to a condition acceptable to the director if the final lease/right-of-way permit is not issued or the permittee fails to complete the lease/right-of-way process within one year of the date of the execution of this entry authorization. Permittee also understands that early entry is undertaken at his/her own risk in the event that the final authorization is not issued.

4. Permittee and permittee's contractors, subcontractors and all personnel shall indemnify the State of Alaska and hold it harmless from any and all claims, suits, loss, liability and expense for injury to or death of persons and damage to or loss of property arising out of or in connection with permittee's entry on and use of this land.

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### SPECIAL STIPULATIONS

1. **Authorized Officer.** The Authorized Officer for the Department of Natural Resources is the Northern Regional Manager, or designee of the Division of Land. The Authorized Officer may be contacted at 3700 Airport Way, Fairbanks, Alaska 99709, or (907) 451-2740. The Authorized Officer reserves the right to modify these stipulations or use additional stipulations as deemed necessary.
2. **Indemnification. Standard Stipulation #4 is amended to read as follows:** Permittee assumes all responsibility, risk and liability for all activities of Permittee, its employees, agents, invitees, contractors, subcontractors, or licensees directly or indirectly conducted in connection with this permit, including environmental and hazardous substance risks and liabilities, whether accruing during or after the term of this permit. Permittee shall defend, indemnify, and hold harmless the State of Alaska, its employees, and agents from and against any and all suits, claims, actions, losses, costs, penalties, and damages of whatever kind or nature, including all attorney's fees and litigation costs, arising out of, in connection with, or incident to any act or omission by Permittee, its employees, agents, invitees, contractors, subcontractors, or licensees, unless the sole proximate cause of the injury or damage is the negligence or willful misconduct of the State or anyone acting on the State's behalf. Within 15 days Permittee shall accept any such cause or action or proceeding upon tender by the State. This indemnification shall survive the termination of the permit.
3. **Valid Existing Rights.** This authorization is subject to all valid existing rights in and to the land under this authorization. The State of Alaska makes no representations or warranties whatsoever, either expressed or implied, as to the existence, number, or nature of such valid existing rights.
4. **Reservation of Rights.** The Division reserves the right to grant additional authorizations to third parties for compatible uses on or adjacent to the land under this authorization.
5. **Alaska Historic Preservation Act..** The permittee shall consult the Alaska Heritage Resources Survey (907) 269-8718 so that known historic, archaeological and paleontological sites may be avoided.

The Alaska Historic Preservation Act (AS 41.35.200) prohibits the appropriation, excavation, removal, injury, or destruction of any state-owned historic, prehistoric (paleontological) or archaeological site without a permit from the commissioner. Should any sites be discovered during the course of field operations, activities that may damage the site will cease and the Office of History and Archaeology in the Division of Parks and Outdoor Recreation (907) 269-8720 and shall be notified immediately.

6. **Assignment..** This permit may be transferred or assigned with prior written approval from the Authorized Officer.
7. **Site Restoration.** Upon expiration, completion, or termination of this authorization, the site shall be vacated and all improvements, personal property, and other chattels shall be removed or they will become the property of the state. The site shall be left in a clean, safe condition acceptable to the Authorized Officer. All solid waste debris and any hazardous wastes that are used and stored on the site shall be removed and backhauled to a ADEC approved solid waste facility.

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8. Completion Report.

- a) A completion report shall be submitted within 30 days of termination of the authorized activities. The report shall contain the following information:
  - i) Actual routes of travel, the location of permit activities, and the location of all camps depicted on a USGS topographic map.
  - ii) A statement of restoration activities and methods of debris disposal.
  - iii) A statement that the permittee has removed all improvements and personal property from the authorized area.
  - iv) A report covering any known incidents of damage to the vegetative mat and underlying substrate, and follow-up corrective actions that may have taken place while operating under this authorization.
- b) Failure to submit the required report may subject the permitted site to a final field inspection. The permittee shall be assessed a fee for this inspection per 11 AAC 05.010 (a)(7)(M).

9. Fire Prevention, Protection, and Liability. **Standard Stipulation 2h is amended to read as follows:** The State of Alaska is not liable for damage to the permittee's personal property and is not responsible for forest fire protection of the permittee's activity. If the burn spreads outside the MAP (Maximum Allowable Perimeter) and cannot be contained by holding forces, a WFSA (Wildland Fire Situation Analysis) will be completed and based on recommended strategy, appropriate suppression will be implemented (Attachment B, Burn Plan).

10. Forest Resources. The burn objective is to; burn 50 percent of the core area, achieve a mortality rate of 50 percent of the black spruce and 50 percent mortality of the above ground stems of birch, aspen, poplar and willow (Attachment B, Burn Plan).

11. Plan of Operations. Permittee is responsible for accurately siting development and operations within this area. Any proposed revisions to the application must be approved in writing by the Authorized Officer before the change in use or development occurs (Attachment B, Burn Plan, Attachment C, Operational Plan and Attachment D, Public Information Plan).

12. Fuel and hazardous substances. The use and storage of hazardous substances by the permittee must be done in accordance with existing federal, state, and local laws, regulations, and ordinances. Debris (such as soil) contaminated with used motor oil, solvents, fuels for burning operation, or other chemicals may be classified as a hazardous substance and must be removed from the site and managed and disposed of in accordance with state and federal law.

Fuel storage containers with a total capacity greater than 55 gallons will not be placed within 100 feet of the ordinary high water marks of waterbodies. Containers which exceed a total combined capacity of 110 gallons must be stored within an impermeable diked area, or portable containment structure capable of containing 100 percent of the capacity of the largest independent container. All fuel storage containers must be clearly marked with the contents and the owner's name. Drip pans and absorbent pads must be available to contain and clean up spills from any transfer or handling of fuel.

13. Burn Plan. A prescribed Burn Plan, approved by the Division of Forestry, must be in place prior to igniting the burn (Attachment B).

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14. **Notification.** The permittee shall immediately notify DNR and DEC by phone of any unauthorized discharge of oil to water, any discharge of hazardous substances (other than oil), and any discharge of oil greater than 55 gallons on land. All fires and explosions must also be reported.

The DNR 24 hour spill report number is (907) 451-2678; the Fax number is (907) 451-2751.  
The DEC spill report number is (800) 478-9300. DNR and DEC shall be supplied with all follow-up incident reports.



**Appendix K.** Values identified for protection in the Western Tanana Flats Prescribed Burn Plan.  
(Note: see Appendix L. for site information and preparation needs.)

Type	ID #	Acres	Owner of Record	Map Coordinates (degrees)		Legal Description	Physical Location
				Lat.	Long.		
Private land parcel	ADL 402011	11.45	Lisa M. Carr PO Box 56746 North Pole, AK 99705	64 12 00	147 54	S26 T8S R2W FM	Outside MAP - approx. 0.5 mi. east of Gold King airstrip and approx. 4 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 402012	11.1	Kenneth J. Turnquist 3046 Taxi Lane #A North Pole, AK 99705	64 11 00	147 54	S35 T8S R2W FM	Outside MAP - approx. 1 mi. SE of Gold King airstrip and approx. 4 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 402014	10.95	Stephen Carwile PO Box 374 Healy, AK 99743	64 11 00	147 54	S26, 35 T8S R2W FM	Outside MAP - approx. 1 mi. SE of Gold King airstrip and approx. 4 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 402018	5.86	Vern P. Bates 2556 Dillon Ave. North Pole, AK 99705	64 10 00	147 58	S4-5 T9S R2W FM	Outside MAP - approx. 4 mi. SSW of Gold King airstrip and approx. 3 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 402019	6.3	Willeda M. Bates 2556 Dillon Ave. North Pole, AK 99705	64 10 00	147 58	S4-5 T9S R2W FM	Outside MAP - approx. 4 mi. SSW of Gold King airstrip and approx. 3 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 402084	5.24	Marianne P. Kittredge 619 D. Ministerial Rd. Wakefield, RI 02879			S11 T8S R1W FM	Outside MAP - On east bank of Wood River approx. 8 mi. ENE of Gold King airstrip and approx. 11 mi. east of Ignition Unit #5.
Private land parcel	ADL 402087	3.59	James C. Harris PO Box 1216 Delta Junction, AK 99737	64 18 30	147 54	S14 T7S R2W FM	Outside MAP - on NE side of Wood River approx. 7.5 mi. north of Gold King airstrip and approx. 5 mi. east of Ignition Unit #5.
Private land parcel	ADL 402088	6.39	Daniel D. Failoni 458 Gold Dust Drive Fairbanks, AK 99709	64 20 30	148 00	S5 T7S R2W FM	Outside MAP - on SW side of Wood River approx. 10 mi. NNW of Gold King airstrip and approx. 3 mi. east of NE corner of Ignition Unit #5.
Private land parcel	ADL 408820	19.52	Harry B. Niehaus PO Box 55455 North Pole, AK 99705	64 12 00	147 56	S27 T8S R2W FM	Outside MAP - near SE corner of Gold King airstrip and approx. 3.5 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 408821	10.33	Laurence C. Mead PO Box 61333 Fairbanks, AK 99706	64 11 45	147 57	S28 T8S R2W FM	Outside MAP - approx. 0.3 mi. SW of Gold King airstrip and approx. 3 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 408822	18.61	Bruce A. Swaim PO Box 1026 Delta Junction, AK 99737	64 18 30	147 54	S14 T7S R2W FM	Outside MAP - on NE side of Wood River approx. 7.5 mi. north of Gold King airstrip and approx. 5 mi. east of Ignition Unit #5.

**Appendix K.** Values identified for protection in the Western Tanana Flats Prescribed Burn Plan.  
(Note: see Appendix L. for site information and preparation needs.)

Type	ID #	Acres	Owner of Record	Map Coordinates (degrees)		Legal Description	Physical Location
				Lat.	Long.		
Private land parcel	ADL 408823	11.68	Charles W. Derick, Jr. 891 Seldom Seen Road Fairbanks, AK 99712	64 11 35	147 57	S28 T8S R2W FM	Outside MAP - approx. 0.5 mi. SW of Gold King airstrip and approx. 3 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 408826	19.45	Richard N. Johnson PO Box 61638 Fairbanks, AK 99706	64 12 00	147 56	S27 T8S R2W FM	Outside MAP - near SE corner of Gold King airstrip and approx. 3.5 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 408912	6.83	James G. Collogly PO Box 83171 Fairbanks, AK 99708	64 11 00	147 54	S26, 35 T8S R2W FM	Outside MAP - approx. 1 mi. SE of Gold King airstrip and approx. 4 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 408937	15.79	Don P. Johnson 168 Shenandoah Dr. Fairbanks, AK 99712	64 18 30	147 55	S15 T7S R2W FM	Outside MAP - on SW side of Wood River approx. 7.5 mi. north of Gold King airstrip and approx. 5 mi. east of Ignition Unit #5.
Private land parcel	ADL 408970	11.47	Larry E. Dalrymple 2130 Porter Avenue North Pole, AK 99705			S9, 10 T8S R1W FM	Outside MAP - West of Chicken Cr. and Wood River, along north side of tractor trail, approx. 7 mi. ENE of Gold King airstrip and approx. 9.5 mi. east of Ignition Unit #5.
Private land parcel	ADL 408972	17.1	Karen R. Tony PO Box 60033 Fairbanks, AK 99706			S9, 10 T8S R1W FM	Outside MAP - West of Chicken Cr. and Wood River, along north side of tractor trail, approx. 7 mi. ENE of Gold King airstrip and approx. 9.5 mi. east of Ignition Unit #5.
Private land parcel	ADL 409029	19.54	John C. Heim 3570 Erin Drive North Pole, AK 99705	64 12 00	147 56	S22, 27 T8S R2W FM	Outside MAP - north side of Gold King airstrip and approx. 3.5 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 409030	20	Stephen D. Dubois PO Box 702 Delta Junction, AK 99737	64 12 00	147 56	S22, 27 T8S R2W FM	Outside MAP - near NE corner of Gold King airstrip and approx. 3.5 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 409440	17.25	Robert C. Hogan 2165 Ermine Dr. North Pole, AK 99705	64 18 30	147 54	S14 T7S R2W FM	Outside MAP - on NE side of Wood River approx. 7.5 mi. north of Gold King airstrip and approx. 5 mi. east of Ignition Unit #5.
Private land parcel	ADL 409446	6.19	Michael L. Hale 302 Spring Street Fayetteville, NC 28305	64 19 00	147 55	S15 T7S R2W FM	Outside MAP - on NE side of Wood River approx. 7.5 mi. north of Gold King airstrip and approx. 5 mi. east of Ignition Unit #5.
Private land parcel	ADL 410087	16.308				S3, 10 T8S R1W FM	Outside MAP - on west bank of Wood River, approx. 7 mi. east of Gold King airstrip and approx. 8.5 mi. east of Ignition Unit 5.

**Appendix K.** Values identified for protection in the Western Tanana Flats Prescribed Burn Plan.  
(Note: see Appendix L. for site information and preparation needs.)

Type	ID #	Acres	Owner of Record	Map Coordinates (degrees)		Legal Description	Physical Location
				Lat.	Long.		
Private land parcel	ADL 410089	16.723				S3, 10 T8S R1W FM	Outside MAP - on west bank of Wood River, approx. 7 mi. east of Gold King airstrip and approx. 8.5 mi. east of Ignition Unit 5.
Private land parcel	ADL 410115	13.27	Ronald K. Dunfey 1737 University Ave. Apt. G-63 Fairbanks, AK 99709	64 12 00	147 57	S21-22, S27-28 T8S R2W FM	Outside MAP - West end of Gold King airstrip and approx. 3 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 410132	7.796	Per K. Sather 453 Valley View Dr. Fairbanks, AK 99712			S11 T8S R1W FM	Outside MAP - On east bank of Wood River approx. 8 mi. ENE of Gold King airstrip and approx. 11 mi. east of Ignition Unit #5.
Private land parcel	ADL 410239	11.41	Patricia Dyer-Smith PO Box 81068 Fairbanks, AK 99708	64 12 00	147 57	S22 T8S R2W FM	Outside MAP - NW corner of Gold King airstrip and approx. 3 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 410254	16.14	Wallace B. Smith, Jr. PO Box 81068 Fairbanks, AK 99708	64 12 00	147 57	S27, 28 T8S R2W FM	Outside MAP - SW corner of Gold King airstrip and approx. 3 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 410270	4.11	Robert Dyer PO Box 020907 Juneau, AK 99802	64 12 00	147 56	S22, 27 T8S R2W FM	Outside MAP - north side of Gold King airstrip and approx. 3.5 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 410322	19.98	Gary D. W'ik 1778 Stony Hollow Road Fairbanks, AK 99709	64 12 30	147 58	S21 T8S R2W FM	Outside MAP - approx. 0.75 mi. NW of Gold King airstrip and approx. 2.5 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 410323	20	William M. Sullivan, Jr. PO Box 72462 Fairbanks, AK 99701	64 12 30	147 58	S21 T8S R2W FM	Outside MAP - approx. 0.75 mi. NW of Gold King airstrip and approx. 2.5 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 410408	18.28	Teddy W. Baxter 344 Scenic Hills Ct Fairbanks, AK 99712	64 12 00	147 56	S27 T8S R2W FM	Outside MAP - at SE corner of Gold King airstrip and approx. 3.5 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 410443	10.71	David F. Pott PO Box 60354 Fairbanks, AK 99706	64 11 40	147 57	S28 T8S R2W FM	Outside MAP - approx. 0.5 mi. SW of Gold King airstrip and approx. 3 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 410459	10.26	Helen P. Acosta 322 Droz Drive Fairbanks, AK 99701-3269	64 11 00	147 54	S35 T8S R2W FM	Outside MAP - approx. 1 mi. SE of Gold King airstrip and approx. 4 mi. east of SE corner of Ignition Unit #5.

**Appendix K.** Values identified for protection in the Western Tanana Flats Prescribed Burn Plan.  
(Note: see Appendix L. for site information and preparation needs.)

Type	ID #	Acres	Owner of Record	Map Coordinates (degrees)		Legal Description	Physical Location
				Lat.	Long.		
Private land parcel	ADL 410462	19.73	Donald J. Verstrate 245 Bentley Drive Fairbanks, AK 99701	64 12 00	147 56	S27 T8S R2W FM	Outside MAP - near SE corner of Gold King airstrip and approx. 3.5 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 410466	3.72	Robert P. Hogan 3043 Victoria Cr. North Pole, AK 99705	64 19 00	147 54	S14 T7S R2W FM	Outside MAP - on NE side of Wood River approx. 7.5 mi. north of Gold King airstrip and approx. 5 mi. east of Ignition Unit #5.
Private land parcel	ADL 410534	4.37	Peter R. Buist PO Box 71561 Fairbanks, AK 99707	64 19 30	147 56	S9-10 T7S R2W FM	Outside MAP - on NE side of Wood River approx. 8.5 mi. north of Gold King airstrip and approx. 4 mi. east of Ignition Unit #5.
Private land parcel	ADL 410600	4.48	Thoma L. Hansen 1067 Daisy Dr. Fairbanks, AK 99712	64 19 30	147 56	S9 T7S R2W FM	Outside MAP - on NE side of Wood River approx. 8.5 mi. NNW of Gold King airstrip and approx. 4 mi. east of Ignition Unit #5.
Private land parcel	ADL 410672	16.66	Mike Balough 1725 Willow Fairbanks, AK 99701	64 11 30	147 57	S28, 33 T8S R2W FM	Outside MAP - approx. 0.75 mi. SW of Gold King airstrip and approx. 3 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 412048	0.01	Guy Ramsey c/o M. Pearson PO Box 40005 Clear, AK 99704	64 14 45	148 45	S4 T8S R6W FM	Outside MAP - just west of the Totatlanika River and south of the Rex Trail, and approx. 3 miles west of the SW corner of Ignition Unit #3.
Private land parcel	ADL 412049	0.01	Guy Ramsey c/o M. Pearson PO Box 40005 Clear, AK 99704	64 13 00	148 29	S15 T8S R4W FM	Outside MAP - just west of Tatlanika Creek and south of the Rex Trail, near the SE corner of Ignition Unit #3.
Private land parcel	ADL 413841	19.91	Rebecca O. Whalin 1115 Dee Lane North Pole, AK 99705	64 10 30	147 58	S33 T8S R2W FM	Outside MAP - approx. 1.5 mi. SSW of Gold King airstrip and approx. 3 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 413878	19.15	Bob D. Watts 444 McKinley View Drive Fairbanks, AK 99712	64 11 00	147 54	S26-27 T8S R2W FM	Outside MAP - approx. 0.75 mi. SE of Gold King airstrip and approx. 4 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 413882	18.15	Sandra Johanna Hess 1611 Placer Drive Fairbanks, AK 99707	64 11 00	147 54	S26-27, S34-35 T8S R2W FM	Outside MAP - approx. 0.75 mi. SE of Gold King airstrip and approx. 4 mi. east of SE corner of Ignition Unit #5.
Private land parcel	ADL 414770	0	Ronald B. Perkins PO Box 81223 Fairbanks, AK 99708			S14 T8S R1W FM	Outside MAP - on east side of Chicken Cr. and west of Wood River, approx. 8 mi. east of Gold King airstrip and approx. 10 mi. east of Ignition Unit 5.



**Appendix K.** Values identified for protection in the Western Tanana Flats Prescribed Burn Plan.  
(Note: see Appendix L. for site information and preparation needs.)

Type	ID #	Acres	Owner of Record	Map Coordinates (degrees)		Legal Description	Physical Location
				Lat.	Long.		
Private land parcel	ADL 52616	4.98	William Toreki 30 South Fifth Ave. Highland Park, NJ 08904			S7 T4S R6W FM	Outside MAP - On north bank of Tanana River approx. 1.7 mi. NW of Ignition Unit #2.
Native allotment	F 000357		Deceased (see heirs of Chief Thomas)	64 34 79	148 38 77	W1/4 S7 T4S R5W; SE1/4 S12 T4S R6W	Inside MAP - Beside Tatlanika Creek adjacent to NW corner of Ignition Unit 1.
Native allotment	F 000412		Deceased (see heirs of Luke Thomas)	64 36 34	148 37 33	N1/2 S11 T4S R6W	Inside MAP - Between Tanana R. and Wood R. adjacent to NW corner of Ignition Unit 1.
Native allotment	F 000418		Deceased (see heirs of John Thomas)			S1/4 S31 T3S R5W; NW1/4 S6 T4S R5W	
Native allotment	F 000435A						
Native allotment	F 000435B						
Native allotment	F 000828		Deceased (see heirs of Noah Albert)			E1/4 S11, W1/4 S12 T4S R6W;	
Native allotment	F 000883					SE1/4 S16, SW1/4 S17, NE1/4 S19, NW1/4 S20 T3S R5W	
Native allotment	F 002778					S1/2 S10 T4S R7W	
Native allotment	F 013296A						
Native allotment	F 024288A						
Native allotment	F 035085C					SW1/4 NW1/4 S6 T5S R6W FM	Outside MAP - approx. 0.25 mi. west of Totatlanika R. adjacent to the SW corner of Ignition Unit #2.
Native allotment	F 035085D		Deceased (see heirs of Dinah Albert)			Center of W1/4 S6 T5S R6W	
Native allotment	FF001042E		AI Wright (?) Fairbanks, AK			S17, 20 T9S R1W FM	Outside MAP - approx 7 mi. SE of Gold King airstrip and approx. 9 mi. SE of the SE corner of Ignition Unit #5.
Native allotment	FF001311						
Native allotment	FF012615A		Deceased (see heirs of Thomas Albert)			SW1/4 NW1/4 S31 T5S R3W	Inside MAP - approx. 1/4 mi. west of Wood River adjacent to SE portion of Ignition Unit 6, and approx. 3.5 mi. SW of VABM 971 (Wood River Buttes).

Type	ID #	Acres	Owner of Record	Map Coordinates (degrees)		Legal Description	Physical Location
				Lat.	Long.		
Native allotment	FF012615B		Deceased (see heirs of Thomas Albert)	64 34 78	148 37 65	S1/2 S7 T4S R5W	Inside MAP - Beside Tatlanika Creek adjacent to NW corner of Ignition Unit 1.
Native allotment	FF012615C		Deceased (see heirs of Thomas Albert)			SE1/4 NW1/4 S20 T4S R6W FM	Outside MAP - on Windy Creek approx. 1 mi. west of Ignition Unit #2 and approx. 1 mi. south of Tanana River.
Native allotment	FF012615D		Deceased (see heirs of Thomas Albert)	64 31 45	148 24 28	Center of W1/4 S32, T4S R4W	Inside MAP - on SE side of Wood River adjacent to SE corner of Ignition Unit #1.
Native allotment	FF013062		Deceased (see heirs of Richard Ketzler)	64 35 94	148 29 86	NW1/4 S2 T4S R5W	Inside MAP - on SE side of Wood River adjacent to NE corner of Ignition Unit #1.
Native allotment	FF013463						
Native allotment	FF014577					SW1/4 S6 and NW1/4 S7 T7S R7W FM	Outside MAP - north side of Rex Trail approx. 8.5 mi. west of SW corner of MAP.
Native allotment	FF014578A						
Native allotment	FF014649B		Hank Ketzler PO Box 68 Nenana, AK 99760			N1/2 SW1/4 S14 T4S R7W	
Native allotment	FF015280A					S1/4 S6, N1/4 S7 T4S R6W	
Native allotment	FF015561B					SW1/4 S25 T3S R6W	
Native allotment	FF018266A					Center of S10 T4S R6W	
Native allotment	FF018266B		Virginia H. Albert PO Box 253 Nenana, AK 99760			W1/4 S13 T4S R7W	
Timber			Toghothele Corporation Edna Hancock, President Box 249 Nenana, AK 99760 Phone: 832-5461			T7S, R6W	Commercial quality timber is located long the Totatlanika River in area 20 (see Appendix E). Check with land owner for more detailed information if burning poses a risk to this resource.

Appendix L. Site information and preparation needs for the values identified for protection in the Western Tanana Flats Prescribed Burn Plan. Note: see Appendix K for site location information.

ID Number	Fuel Type	Structures Present	Helisports and Safety Zones	Line Location and Preparation Requirements	Supplies Needed	Water Source for Pumps and Buckets
F 000357		Cabin	River	Boat	Mark III, sprinklers	Rivers
F 000412	Large white spruce stand	None	Meadow S & E of spruce stand, and river to north.		Boat, Mark III	Rivers
FF012615A	Deciduous trees	Uninhabited cabin with historic significance				
FF012615B	White spruce	Cabin	Yes: meadow (64 34.52 x 148 37 18), creek, slough	Structure protection	Mark III, sprinklers	Rivers
FF012615D	White spruce	Cabin	Yes: S. of cabin by trail (64 31.44 x 148 24.23)	Set up pump show/sprinklers	Sprinkler setup, Mark III	River
FF013062	White spruce, meadows, brush, black spruce, and willows	None	Yes - meadows, marsh, ponds	Through spruce, connect bogs and old slough	To do prep work: saws, pumps	Rivers, ponds, lake

Appendix M. Identified values which will not be protected.

Type	ID #	Acres	Owner	Map Coordinates (degrees)		Legal Description	Physical Location
				Lat.	Long.		
Unauthorized cabin	UNK 001	0	Charlie Horvach (?) Phone: 458-7950	64 36.66	148 32.28	NW1/4 NW14 NE1/4 S18 T4S R4W FM	E. side of Wood River
Unauthorized cabin	UNK 002	0	Charlie Horvach (?) Phone: 458-7950	64 34.50	148 25.80	NE1/4 SW1/4 S34 T3S R5W FM	W. side of Wood River
Unauthorized trapping cabin	UNK 003	0	Ron Perkins P.O. Box 81223 Fairbanks, AK 99708 Phone: 452-0077				Located in Ign. Unit 5 near St. George Creek.

## Appendix N. Estimated firing costs per Ignition Unit.

<b>LOCATION:</b>	<u>Tanana Flats</u>	<b>DATE:</b>	_____	<b>PREPARED BY:</b>	<u>Schmoll</u>
Day 1: FIRING	Personnel				
	Crews: Type 1	<u>0 crws@</u>	\$5,500 /Day	<u>\$0</u>	
	or Type 1	<u>0 Hrs. @</u>	\$400 /Hr.	<u>\$0</u>	
	Type 2	<u>1 crws@</u>	\$4,000 /Day	<u>\$4,000</u>	
	Type 2	<u>0 Hrs. @</u>	\$250 /Hr.	<u>\$0</u>	
	EFF	<u>0 OH/EFF@</u>	\$250 /Day	<u>\$0</u>	
	Overhead	<u>10 OH@</u>	\$450 /Day	<u>\$4,500</u>	
	Overhead	<u>20 Hrs. @</u>	\$25 /Hr.	<u>\$500</u>	
	EFF Overhead	<u>0 Hrs. @</u>	\$15 /Hr.	<u>\$0</u>	
				<b>Personnel Total:</b>	<u>\$9,000</u>
				<b>Supplies, 0% of total:</b>	<u>\$0</u>
AIRCRAFT (Includes Fuel):					
	KC-97 (State)	<u>0.0 Hrs. @</u>	\$2,800 /Hr.	<u>\$0</u>	
	DC-7 (State)	<u>0.0 Hrs. @</u>	\$2,200 /Hr.	<u>\$0</u>	
	PB4Y2	<u>0.0 Hrs. @</u>	\$2,300 /Hr.	<u>\$0</u>	
	Sherpa	<u>0.0 Hrs. @</u>	\$930 /Hr.	<u>\$0</u>	
	Casa 212	<u>0.0 Hrs. @</u>	\$670 /Hr.	<u>\$0</u>	
	Dornier (fed)	<u>0.0 Hrs. @</u>	\$660 /Hr.	<u>\$0</u>	
	DHC-2 (State)	<u>12.0 Hrs. @</u>	\$55 /Hr.	<u>\$660</u>	
	PC-7 (state)	<u>0.0 Hrs. @</u>	\$800 /Hr.	<u>\$0</u>	
	AERO Com (FED)	<u>0.0 Hrs. @</u>	\$260 /Hr.	<u>\$0</u>	
	Shrike Commander	<u>12.0 Hrs. @</u>	\$200 /Hr.	<u>\$2,400</u>	
	CARAVAN	<u>0.0 Hrs. @</u>	\$370 /Hr.	<u>\$0</u>	
	B-206 (2)	<u>12.0 Hrs. @</u>	\$400 /Hr.	<u>\$9,600</u>	
	B-212 (State)	<u>2.0 Hrs. @</u>	\$1,000 /Hr.	<u>\$2,000</u>	
				<b>Aircraft Total:</b>	<u>\$14,660</u>
LCA Retardent:	<u>0 Gals. @</u>	\$1 /Gal.		<u>\$0</u>	
<b>Equipment</b>					
	Medium Engines	<u>0</u>	\$50 /Run	<u>\$0</u>	
	Light Engines	<u>0</u>	\$40 /Run	<u>\$0</u>	
	Support Vehicle	<u>0</u>	\$40 /Run	<u>\$0</u>	
				<b>Equipment Total:</b>	<u>\$0</u>
<b>Supply Totals</b>					
	Ping Pong Balls	<u>30 Box@</u>	\$150 /Box	<u>\$4,500</u>	
	Fusee	<u>1 Case@</u>	\$55 /Case	<u>\$55</u>	
	Glycol	<u>4</u>	\$10 /each	<u>\$40</u>	
	Boat	<u>0</u>	/Run	<u>\$0</u>	
	Sprinkler Kits	<u>0</u>	/Run	<u>\$0</u>	
	Fuel Truck	<u>0</u>	/Hr.	<u>\$0</u>	
				<b>Total:</b>	<u>\$4,595</u>
				<b>Sub Total:</b>	<u>\$28,255</u>
				Support 5%	<u>\$1,413</u>
				<b>Grand Total:</b>	<u>\$29,668</u>



## Page 1

PREPARED BY: Schmoll

## Personnel

Crews: Type 1	0 crws@	\$5,500 /Day	\$0
or Type 1	0 Hrs. @	\$400 /Hr.	\$0
Type 2	0 crws@	\$4,000 /Day	\$0
Type 2	0 Hrs. @	\$250 /Hr.	\$0
EFF	0 OH/EFF@	\$250 /Day	\$0
Overhead	0 OH@	\$450 /Day	\$0
Overhead	0 Hrs. @	\$25 /Hr.	\$0
EFF Overhead	0 Hrs. @	\$15 /Hr.	\$0

**Supplies, 30% of total:**                      \$0

KC-97 (State)	0.0 Hrs. @	\$2,800 /Hr.	\$0
DC-7 (State)	0.0 Hrs. @	\$2,200 /Hr.	\$0
PB4Y2	0.0 Hrs. @	\$2,300 /Hr.	\$0
Sherpa	0.0 Hrs. @	\$930 /Hr.	\$0
Casa 212	0.0 Hrs. @	\$670 /Hr.	\$0
Dornier (fed)	0.0 Hrs. @	\$660 /Hr.	\$0
DHC-2 (State)	0.0 Hrs. @	\$55 /Hr.	\$0
PC-7 (state)	0.0 Hrs. @	\$800 /Hr.	\$0
AERO Com (FED)	0.0 Hrs. @	\$260 /Hr.	\$0
Shrike Commander	0.0 Hrs. @	\$200 /Hr.	\$0
CARAVAN	0.0 Hrs. @	\$370 /Hr.	\$0
B-212	0.0 Hrs. @	\$965 /Hr.	\$0
B-212 (State)	5.0 Hrs. @	\$1,000 /Hr.	\$5,000

## Equipment

Medium Engines	<u>0</u>	\$50 /Run	<u>\$0</u>
Light Engines	<u>0</u>	\$40 /Run	<u>\$0</u>
Support Vehicle	0	\$40 /Run	\$0

**Equipment Total:** \_\_\_\_\_ \$0

Ping Pong Balls	0 Box@	\$150 /Box	\$0
Fusee	0 Case@	\$55 /Case	\$0
Glycol	0	\$10 /each	\$0
Boat	0	/Run	\$0
Sprinkler Kits	0	/Run	\$0
Fuel Truck	0	/Hr.	\$0

**Grand Total:** \$5,250

# Appendix O. Estimated holding costs

Page 2

<b>LOCATION:</b> <u>Tanana Flats</u>		<b>DATE:</b> _____	<b>PREPARED BY:</b> <u>Schmoll</u>
Day 2: Holding/ Monitoring	Personnel		
	Crews: Type 1	0 crws@	\$5,500 /Day
	or Type 1	0 Hrs. @	\$400 /Hr.
	Type 2	0 crws@	\$4,000 /Day
	Type 2	0 Hrs. @	\$250 /Hr.
	EFF	0 OH/EFF@	\$250 /Day
	Overhead	0 OH@	\$450 /Day
	Overhead	68 Hrs. @	\$25 /Hr.
	EFF Overhead	0 Hrs. @	\$15 /Hr.
			<b>Personnel Total:</b> \$1,688
			<b>Supplies, 30% of total:</b> \$506
<b>AIRCRAFT (Includes Fuel):</b>			
	KC-97 (State)	0.0 Hrs. @	\$2,800 /Hr.
	DC-7 (State)	0.0 Hrs. @	\$2,200 /Hr.
	PB4Y2	1.0 Hrs. @	\$2,300 /Hr.
	Casa 212	0.0 Hrs. @	\$670 /Hr.
	Dornier (fed)	0.0 Hrs. @	\$660 /Hr.
	DHC-2 (State)	0.0 Hrs. @	\$55 /Hr.
	PC-7 (state)	0.0 Hrs. @	\$800 /Hr.
	AERO Com (FED)	0.0 Hrs. @	\$260 /Hr.
	Shrike Commander	4.0 Hrs. @	\$200 /Hr.
	CARAVAN	0.0 Hrs. @	\$370 /Hr.
	B-212	0.0 Hrs. @	\$965 /Hr.
	B-212 (State)	4.0 Hrs. @	\$1,000 /Hr.
			<b>Aircraft Total:</b> \$7,100
LCA Retardent:	2000 Gals. @	\$1 /Gal.	\$2,000
<b>Equipment</b>			
	Medium Engines	0	\$50 /Run
	Light Engines	0	\$40 /Run
	Support Vehicle	0	\$40 /Run
			<b>Equipment Total:</b> \$0
<b>Supply Totals</b>			
	Ping Pong Balls	0 Box@	\$150 /Box
	Fusee	0 Case@	\$55 /Case
	Glycol	0	\$10 /each
	Boat	0	/Run
	Sprinkler Kits	0	/Run
	Fuel Truck	0	/Hr.
			<b>Total:</b> \$0
			<b>Sub Total:</b> \$11,294
			Support 5% \$565
			<b>Grand Total:</b> \$11,859

Appendix O. Estimated holding costs

Page 3

<b>LOCATION:</b>	<u>Tanana Flats</u>	<b>DATE:</b>	_____	<b>PREPARED BY:</b>	<u>Schmoll</u>
Day 3: Holding/ Monitoring	Personnel				
	Crews: Type 1	<u>0 crws@</u>	\$5,500 /Day	<u>\$0</u>	
	or Type 1	<u>0 Hrs. @</u>	\$400 /Hr.	<u>\$0</u>	
	Type 2	<u>0 crws@</u>	\$4,000 /Day	<u>\$0</u>	
	Type 2	<u>0 Hrs. @</u>	\$250 /Hr.	<u>\$0</u>	
	EFF	<u>0 OH/EFF@</u>	\$250 /Day	<u>\$0</u>	
	Overhead	<u>0 OH@</u>	\$450 /Day	<u>\$0</u>	
	Overhead	<u>68 Hrs. @</u>	\$25 /Hr.	<u>\$1,688</u>	
	EFF Overhead	<u>0 Hrs. @</u>	\$15 /Hr.	<u>\$0</u>	
				<b>Personnel Total:</b>	<u>\$1,688</u>
				<b>Supplies, 30% of total:</b>	<u>\$506</u>
AIRCRAFT (Includes Fuel):					
	KC-97 (State)	<u>0.0 Hrs. @</u>	\$2,800 /Hr.	<u>\$0</u>	
	DC-7 (State)	<u>0.0 Hrs. @</u>	\$2,200 /Hr.	<u>\$0</u>	
	PB4Y2	<u>1.0 Hrs. @</u>	\$2,300 /Hr.	<u>\$2,300</u>	
	Sherpa	<u>0.0 Hrs. @</u>	\$930 /Hr.	<u>\$0</u>	
	Casa 212	<u>0.0 Hrs. @</u>	\$670 /Hr.	<u>\$0</u>	
	Dornier (fed)	<u>0.0 Hrs. @</u>	\$660 /Hr.	<u>\$0</u>	
	DHC-2 (State)	<u>0.0 Hrs. @</u>	\$55 /Hr.	<u>\$0</u>	
	PC-7 (state)	<u>0.0 Hrs. @</u>	\$800 /Hr.	<u>\$0</u>	
	AERO Com (FED)	<u>0.0 Hrs. @</u>	\$260 /Hr.	<u>\$0</u>	
	Shrike Commander	<u>4.0 Hrs. @</u>	\$200 /Hr.	<u>\$800</u>	
	CARAVAN	<u>0.0 Hrs. @</u>	\$370 /Hr.	<u>\$0</u>	
	B-212 (State)	<u>4.0 Hrs. @</u>	\$1,000 /Hr.	<u>\$4,000</u>	
	B-350B2	<u>0.0 Hrs. @</u>	\$500 /Hr.	<u>\$0</u>	
				<b>Aircraft Total:</b>	<u>\$7,100</u>
LCA Retardent:	<u>2000 Gals. @</u>	\$1 /Gal.		<u>\$2,000</u>	
<b>Equipment</b>					
	Medium Engines	<u>0</u>	\$50 /Run	<u>\$0</u>	
	Light Engines	<u>0</u>	\$40 /Run	<u>\$0</u>	
	Support Vehicle	<u>0</u>	\$40 /Run	<u>\$0</u>	
				<b>Equipment Total:</b>	<u>\$0</u>
<b>Supply Totals</b>					
	Ping Pong Balls	<u>0 Box@</u>	\$150 /Box	<u>\$0</u>	
	Fusee	<u>0 Case@</u>	\$55 /Case	<u>\$0</u>	
	Glycol	<u>0</u>	\$10 /each	<u>\$0</u>	
	Boat	<u>0</u>	/Run	<u>\$0</u>	
	Sprinkler Kits	<u>0</u>	/Run	<u>\$0</u>	
	Fuel Truck	<u>0</u>	/Hr.	<u>\$0</u>	
				<b>Sub Total:</b>	<u>\$11,294</u>
				Support 5%	<u>565</u>
				<b>Grand Total:</b>	<u>\$11,859</u>

## Appendix P. Estimated site preparation costs, Native allotments phase 1

Site 10 (FF012615d) is a 40 acre allotment with one structure. Approximately 1 mile of fireline is needed to contain the allotment. It will take approximately two days to construct the fireline (phase 1). One day will be needed to put in a sprinkler system or black line prior/after primary ignition (phase 2). A breakdown of costs for site 10 (phase 1) is as follows:

Description	Quantity	Unit Cost	Daily Total	Total Cost
Nenana Crew	2 days	\$4,000	\$4,000	\$8,000
AFS Bell 212 Helicopter (in)	4.5 flight hours	1,040	4,680	4,680
Aviation Fuel	450 gallons	1	450	450
State Technician (3)	2 days	300	900	1,800
Chainsaws/ fuel etc.	6ea./50 gal.	500	500	500
IA Food Box/Cubies	5 food, 15 cubies	170/5	<u>463</u>	<u>926</u>
<b>TOTAL</b>			<b>\$10,993</b>	<b>\$16,356</b>

Site 18 (FF012615a) is a 40 acre allotment with one structure. Approximately 1 mile of fireline is needed to contain the allotment. It will take approximately two days to construct the fireline (phase 1). One day will be needed to put in a sprinkler system or black line prior/after primary ignition (phase 2). A breakdown of costs for site 18 (phase 1) is as follows:

Description	Quantity	Unit Cost	Daily Total	Total Cost
Nenana Crew	2 days	\$4,000	\$4,000	\$8,000
AFS Bell 212 Helicopter (bump)	2.5 flight hours	1,040	2,600	2,600
Aviation Fuel	250 gallons	1	250	250
State Technician (3)	2 days	300	900	1,800
Chainsaws/ fuel etc.	6ea./50 gal.	100	100	100
IA Food Box/Cubies	5 food, 15 cubies	170/5	<u>463</u>	<u>926</u>
<b>TOTAL</b>			<b>\$8,313</b>	<b>\$13,676</b>

Site 12 (FF013062) is a 160 acre allotment without any structures. This allotment will take approximately one day to construct a firebreak. There is one mile of line to put in, but a high percentage of the line is open meadow that needs little site preparation. Hand lighting around site 12 may be necessary at time of primary ignition for unit 1 (phase 2). A breakdown of costs for site 12 (phase 1) is as follows:

Description	Quantity	Unit Cost	Daily Total	Total Cost
Nenana Crew	1 day	\$4,000	\$4,000	\$4,000
AFS Bell 212 Helicopter (bump)	2.5 flight hours	1,040	2,600	2,600
AFS Bell 212 Helicopter (out)	4.0 flight hours	1,040	4,160	4,160
Aviation Fuel	650 gallons	1	650	650
State Technician (3)	1 days	300	900	900
Chainsaws/ fuel etc.	3ea./25 gal.	50	50	50
IA Food Box/Cubies	3 food, 9 cubies	170/5	<u>600</u>	<u>600</u>
<b>TOTAL</b>			<b>\$12,960</b>	<b>\$12,960</b>

## Appendix Q. Estimated site preparation costs, Native allotments phase 2

Site 10 (FF012615d), Site 18 (FF012615a), and Site 12 (FF013062) have all been prepped in phase 1. Phase 2 is the execution of the black line/sprinkler set-up for each site. Each site will have phase 2 implemented at the time the corresponding unit is ignited. For this reason, each site will be assumed to be completed in a single day with the same quantity of resources and support. The following cost summary for each site is as follows:

Description	Quantity	Unit Cost	Daily Total	Total Cost
Nenana Crew	1 day	\$4,000	\$4,000	\$4,000
AFS Bell 212 Helicopter	6 flight hours	1,040	6,240	6,240
Aviation Fuel	600 gallons	1	600	600
State Technician (3)	1 days	300	900	900
Saws/fuel/sprink./Torches etc.	misc.	500	500	500
IA Food Box/Cubies	1 food, 4 cubies	170/5	<u>190</u>	<u>190</u>
<b>TOTAL</b>			<b>\$12,430</b>	<b>\$12,430</b>



## Appendix R. Cost estimate summary

Summary cost estimate for preparing and implementing the Western Tanana Flats Prescribed Burn Plan. Note that this estimate assumes minimal holding problems as outlined in Appendices N and O.

Description	BIA	State of Alaska	Other
ADF&G Personnel expense for plan preparation		\$44,976	
ADF&G Administrative expense		\$13,493	
DOF/FAF Personnel expense for plan preparation		\$56,400	
DOF/FAF Administrative expense		\$16,920	
Bureau of Land Management Assistance (estimated)			\$1,500
Firing and holding costs for all 9 units (based on expenditure of \$34,918 per unit)		\$314,262	
Estimated cost for site 10,12, and 18 phase 1	\$42,992		
Estimated cost for site 10,12, and 18 phase 2	\$12,430		
TCC administrative expense (7% of BIA funding)	<u>\$4,172</u>	<u>          </u>	<u>          </u>
<b>SUB-TOTAL</b>	<b>\$59,594</b>	<b>\$446,051</b>	<b>\$1,500</b>

**Estimated total project cost: \$507,145**

Estimated total project cost per acre (285,785 acres): *\$1.77*

## Appendix S. Organizational Plan

PERSONNEL	
<b>Burn Boss:</b>	Tom Kurth, Division of Forestry, Fairbanks, Alaska
<b>Firing Boss:</b>	Robert Schmoll DOF/FAF
<b>Aerial Firing Group Supervisor:</b>	Tim Howard, AFS/BLM or Skip Thiesen, AFS/BLM
<b>Holding Crew Leader:</b>	Jeff Yarman, DOF/FAF
<b>Engine Crew Leader:</b>	Not applicable at this time, no road access
<b>Fire Behavior Specialist:</b>	Ray Kraemer, DOF/TAF Skip Thiesen, AFS/BLM
<b>Helitorch or PSD module leader:</b>	Tim Howard, AFS/BLM or Skip Thiesen, AFS/BLM
<b>P.I.O.</b>	Fairbanks - Kathy Harms; ADF&G Nenana PIO – Pete Buist DOF/FAF
Remarks/Comments	
<b>Staging Area</b>	Holder crew leader (s) will function as Staging area managers until notified of possible allotment protection
<b>Communications:</b>	151.295 Rx - 159.300 Tx - Nenana Repeater w/141.3 Code Guard
<b>for Burn:</b>	151.295 Rx - 151.295 Tx Simplex - Ground to Ground
<b>location:</b>	128.45 Rx - 128.45 Tx Victor Air to Air 132.45 Rx      132.45 Tx Victor Air to Ground 166.6375 Rx – 166.6375 Tx Tactical Air to Ground
<b>Other important fx:</b>	Nenana Fire Dept. 154.770 Rx   155.595 Tx AK State Troopers 155.250 Rx   155.250 Tx EMS -F.M.H. 155.160 Rx   155.160 Tx

PERSONNEL AND EQUIPMENT LIST						
Item	Blm	State	Total	Cost	Actual	Other
<b>Personnel:</b>						
Hand Crews	Nenana Crew	2 Loads helitack	30			
Burning Module	2		2			
Burn Boss		1	1			Tom Kurth
Ignition Specialist	1		1			Robert Schmoll
Torch/PSD Modules*	1		1			Tim Howard
Holding Boss		1	1			Jeff Yarman
FBA		1	1			Ray Kramer
PIO		2	2			Rotroff/Buist
<b>Ignition Equipment:</b>						
Fussees		1 case	1 Case			
Drip Torches		20	20			
Helitorch/Premo MKIII		2	2			
<b>Engines/Vehicles:</b>						
Fuel truck w/driver	1 (aviation fuel)		1			
Fuel truck w/driver	1 (helitorch fuel)		1			
Warehouse truck		1	1			
Bus	1		1			
Chase truck		1	1			

\* Note: Helitorch and PSD modules come with SOP items as outlined in 1997 Aerial Firing Ops

PERSONNEL AND EQUIPMENT LIST						
Item	Blm	State	Total	Cost	Actual	Other
<b>Pump, Hose &amp; Misc:</b>						
MK III Kit		5	5			
Hose 1.5 inch		10,000'	10,000'			
Hose 1 Inch		2,000'	2,000'			
Fedcos		25	25			
MRE		1 pallet	1 pallet			
Cubitainer		1 pallet	1 pallet			
Helitorch fuel (unlead)						
Petrogel						
PSD (PingPong balls)		30 cases	30 cases			
Glycol		4 gallons	4 gallons			
Drip torch fuel		10 ea. 5-gal. Cans	10 ea. 5-gal. cans			
Distilled water		2 gallons	2 gallons			
Pre-mix		25 gallons	25 gallons			
<b>Aircraft:</b>						
Light helicopter	1 or 2		2			
Medium helicopter		1	1			
Fixed wing aircraft	2		2			

Operational Objectives

1. Provide a safe operational environment for the public and firefighter. Ensure that all people not involved in the burn operation are clear of the intended ignition area and adjacent areas immediately threatened by fire spread.
2. Ensure all participants are informed with respect to burn plan objectives, operational procedures, communications protocols, and potential hazards.
3. Perform burn during a period when smoke dispersal will be reduced or eliminated in populated areas.
4. Protect critical sites as identified on holding plan.
5. Provide for a firing program, which permits backing fire on identified holding lines. Burn will be allowed to progress in a southerly direction with a maximum allowable perimeter (MAP). Any additional progressions will be evaluated on a case-by-case basis, i.e. east, west and north.
6. Request temporary flight restriction (TFR) over prescribed burn area through FAA flight services.
7. Achieve fire treatment objectives:
  - No injuries or loss of life.
  - Prevent fire spread to identified historical sites, private property and other values needing protection.
  - Prevent the spread of prescribed fires beyond the MAP unless authorized by an approved Wildland Fire Situation Analysis (WFSA).
  - Burn the vegetative cover, to some extent, on 50-70% of the area within the outside perimeter of each prescribed burn.
  - Produce burn characteristics sufficient to kill at least 50% of the black spruce trees occurring within the outside perimeter of each prescribed burn, excluding the unburned inclusions.
  - Produce burn characteristics sufficient to kill at least 50% of the above ground stems of birch, aspen, poplar and willow occurring within the outside perimeter of each prescribed burn, excluding the unburned inclusions.

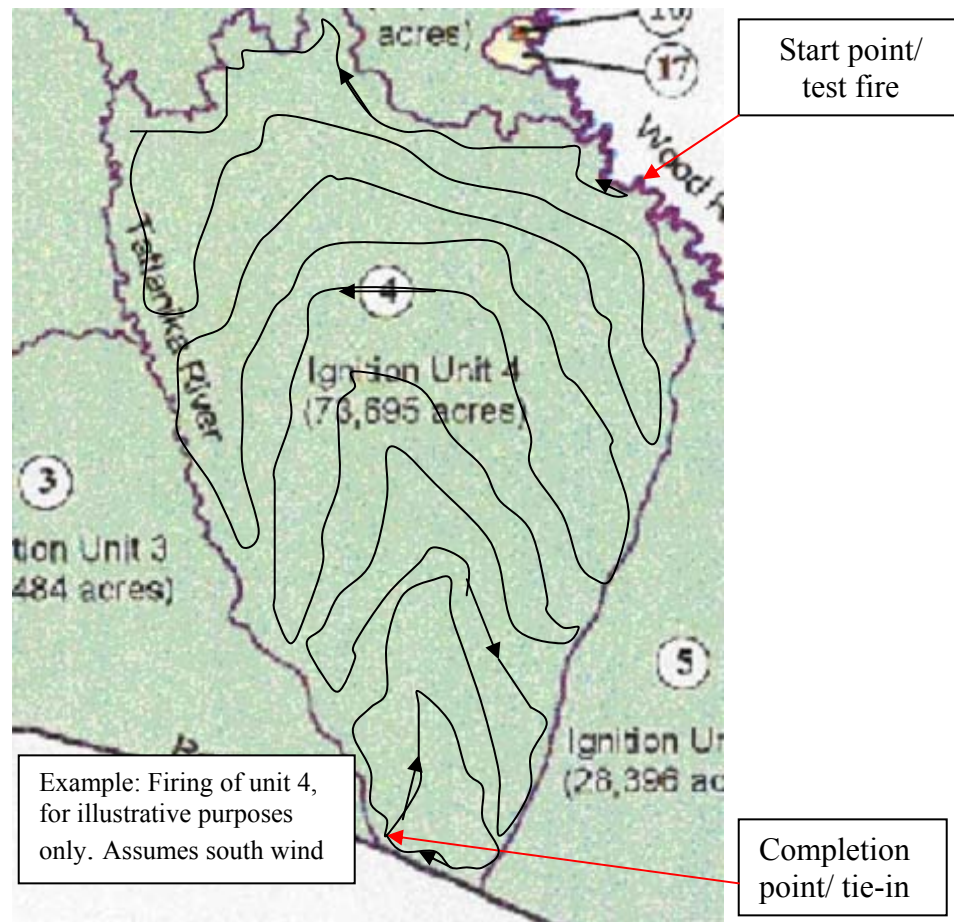
Note: this plan is to be distributed to all personnel involved in the burn.



Ignition. Ignition will be done with a helitorch and aerial ignition platform outfitted with a PSD. If conditions allow, PSD will be used for the following ignition sequence. Assume North to North/West wind vector.

Test Burn. A test burn will be conducted in the down wind corner of each unit (see firing map). The test burn should be large enough to be representative of the fire behavior expected from each burn unit. Firing for the main burn will commence after the desired burning characteristics (intermittent crown fire) are obtained from the test burn.

Firing Pattern. Prior to ignition, a map of the firing sequence will be drawn by the burn boss. Each unit will be fired in a “horseshoe” shaped pattern with approximately ½ mile spacing between lines. As each line is begun, anchor into the previous line and continue with “horseshoe” shaped patterns. The center of the “horseshoe” should be pointing toward the wind vector. Roughly 60 to 120 miles of line will be ignited with this pattern, depending on unit size, burning conditions, and the fires ability to carry each line of fire together. To obtain the best control during ignition, a strong column and good dispersion is needed to continue burning with acceptable visibility for aircraft. Firing will be completed as rapidly as possible to prevent column collapse. Helitorch and PSD may be used alternately or simultaneously to prevent column collapse during the firing process. Approximately 10 to 20 “horseshoe” strips will be needed to complete the firing sequence.



Potential Holding Problems:

1. Totatlanika River and Saint George Creek are narrow and convoluted. A firing pattern to slow progress in respective direction will be applied.
2. Spotting across control lines represented by Tanana/Wood River (N), Totatlanika River (W), Wood River and Saint George Creek (E), and Rex Trail (S).
3. Allotment/cabin sites adjacent to each Unit will be monitored and cabin protection action will be taken as necessary.

\*\* See map (Appendix C) and the site assessment information in Appendix L.

Location of Holding Forces and Instructions:

Holding forces will stage at a site to be announced as each unit is burned. Boat and helicopter transportation will be available. One medium and two light helicopters will be available with water buckets. Pumps, hose and fittings, and sprinkler setups for each cabin will be available and onsite as needed. Hand firing may be conducted from allotments or intertie corridor as needed.

Water Sources:

Totatlanika River, Tatlanika Creek, Wood River, Tanana River, sloughs, creeks and numerous lakes and ponds throughout the burn area and MAP (Maximum allowable perimeter-see maps)

Counter Measures for Slopovers:

Escapes will be evaluated on a case-by-case basis. Use of Helitack and boat attack by squads. Use of buckets, pumps and hose and sprinkler setups. If holding forces assigned cannot contain the slop over, the prescribed burn boss will declare it a wildfire. A WFSA will be completed by the Fairbanks Area Forester and based on recommended strategy; appropriate suppression action will be taken as designated by Line Officer.

Public Safety Provision:

Alaska Department of Fish & Game and Forestry to provide Public Information Officers. Information to be posted and published at public access locations.

Other:

If the fire moves onto military land, Fairbanks Area Forestry, BLM Northern Field Office, and the Military FMO will do a WFSA and appropriate action will be taken. The adjacent military land is in the Limited Management Option, and fires are usually just monitored.

Mop-up and Patrol:

Mop-up will be done on an as-needed basis. The intent of the plan is to minimize manual mop-up as it is cost prohibitive and unnecessary for a landscape habitat/fuel reduction burn. Mop-up should be done primarily by an advancing weather front, and therefore of natural occurrence. After primary firing of each unit, patrol by fixed wing aircraft will be necessary on a daily basis until weather/fire behavior deem it unnecessary as per the Burn Boss.

If mop-up is deemed necessary, the lowest cost option should be implemented that effectively treats the problem area. Specifics about mop-up area, necessary personnel, supplies, and equipment etc. will be announced by the Burn Boss/FMO/Area Forester as needed.

Burning Unit: \_\_\_\_\_

DEC Permit #: \_\_\_\_\_

Date of Burn: \_\_\_\_\_

Time of Ignition: \_\_\_\_\_

**On site Conditions:**

Temp.	R.H.	DC	1 Hr. Fuels	DMC	FFMC	WIND SPEED/ DIR

**Observed fire behavior:** \_\_\_\_\_

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**Results ( progress in achieving fire treatment objectives):** \_\_\_\_\_

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**Problems and/or Concerns: (personnel, equipment, etc.):** \_\_\_\_\_

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**Recommendations for future projects:** \_\_\_\_\_

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**Other:** \_\_\_\_\_

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**Final cost Analysis (Planning, Preparation, Ignition, Holding/ Mop-up, Patrol)**

Project Funding (Codes and Amounts): \_\_\_\_\_

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	State Cost	BIA Cost	Other	Total
Personnel				
Equipment				
Aircraft				
Miscellaneous				
Escapement/ Emergency				
Total Project Cost:				_____

**Burn Boss signature:** \_\_\_\_\_ **Date of Report:** \_\_\_\_\_



Appendix Z. Fire Behavior Worksheets

***Insert Here***